

4000

SPECIAL OFFER

All prices include VAT & 1st Class Delivery

Lockable Storage Box (20 Cap)... Lockable Storage Box (40 Cap)...

3" Disk Drive Head Cleaning Kit

081-744-1834 081-744-2354

Monday - Saturday 10am - 6pm

£9.95

615 50

£19.50

Fax: 081-891-6260 (24hr)

FROM 25th MARCH 1991

Amsoft CF2 3	' Disk	£17.50 (10)£50.95 (30))
Maxell CF2 3"	Disk .	£17.50 (10)£50.95 (30))
(Sne	cial D	esk Ton Publishing Packages.	

complete with software, mouse & interface)

AMX Mouse 8	Micro Design 2	£79.95
	Stop Press	£69.95
	Desktop Publishing	£59.95
	& Paint Pack	£59.95

 PCW 9512 Carbon m/s ribbon£2.70 (1+).....£2.40 (30+) Locoscript PC Ver 1.5 (NEW)£105.95 • Fun School 3 (Age 5, 5-7, 7+)

Amstrad Orig. CPS 8256/8512 Serial Parallel interface...

NEW PCW 102 Keys Replacement keyboard ...£75.95 (PCW 8256/8512/9512 Compatible)

CF2-3" DISKS	£17	2.95
All branded and 100% Certified	for 10	
Maxell CF2 - Double Sided for Single Drive	10 off £17.50	30 off £50.95
Maxell CF2 - D/S (individually cased)	£20.50 £17.50	£59.95
Maxell CF2-D DS/DD for 8512 & 9512	£20.50	£59.95 2 off
Amstrad 3" Storage Box (10 Cap.)	£5.95	£11.50

RIBBONS **Highest Quality Guara**

GAMES NEW LOW PRICES ALL GAMES WORK WITH 8256/8512 ALL GAMES WORK WITH 8256/8512 * PCW 9512 COMPATIBLE * Brian Clough Football Fortune ... £15.50 * Bridge Player 2000 with Tutor ... £12.50 * Bridge Player 2150 Galactica ... £22.50 * Catch 23 ... £13.95 * Classic Games 4 Compilation ... £15.50 * Clock Chess * 89 ... £15.50 * Colossus Bridge 4 ... £12.95 * Colossus Chess 4 ... £12.95 * Corruption ... £17.95 £17.95 Jinxter Lancelot ... Mindfighter £15.50 £13.95 £17.95 £17.50 Pawn Scapeghost School's Out (5 games) £10.95 Scrabble £14.95 Ski Climb Cavern Collection. £11.95 Sporting Triangle...... * Steve Davis Snooker. * Tank Attack..... £16.50 £12.95 £15.95 £15.50 Crossgrid (crossword without clues) £10.95 Cyrus Chess II ... Fish..... The Complete Home G.Gooch's Test Cricket £13.95 ent Centre... * Gnome Rangers * Guild of Thieves Hop, Munch, Shoot Collection. * Time & Magik * Tomahawk * Trivial Pursuit £11.95 £17.95 Hop, Munch, S * Ingrid's Back £15.50 £11.95

DUST COVERS 8256/8512/9512 for monitor, keyboard & printer, anti-static, water proof, cream colour NEW! 9512 dust cover set for monitor, keyboard & printer with sheet feeder£11.50 £5.95 NEW! 9512 dust cover for printer with sheet feeder... CROWN dust cover, 8256/8512 (2pcs), /PC for monitor & keyboard, 1pc for printer, £7.50 (anti-static, water proof, see through) ...

Mini-Office Professional Re-release Package £69.95 £49.95

APPLICATIONS

e	
Master File 8000 Protext (Word Processor, Mail Merge, checker + disk utilities)	spelling £37.95
DBase II	£41.40
AMX Mouse + Interface AMX Mouse + Micro Design II (DTP) Package	
AMX Mouse + Stop Press v2.7	£69.95 £22.95
Tas-Spell 8000 Desk Top Publishing & AMX Mouse	£59.95
New Word 2 New Word 2 with Type Face Set	

NEW! Locoscript II + Loc	ofile (8)£39.95
NEW! Locofont Set (1+2)	
Locofile 8256/8512£26.95	Locoscript PC Ver 1.5 NEW£105.95
Locofile 9512£26.95	Locoscript 2 + Locospell (8)£31.95
Locomail 2 (8)£24.50	Locofile + Locomail (8)£40.50
Locofont 2£13.95	Locoscript 2 (8)£24.95
3" Thesaurus (Deluxe) to use with	Locoscript PC version£85.95
Locofile (8512/9512)£12.95	Locoscript PC + Locolink£101.95
Printer Support Pack£24.95	Locolink£25.00

EDUCATIONAL Fun School 3 under 5's Fun School 3 5-7 yrs Fun School 3 7 and over	Magic Maths (4-8)
Micro English G.C.S.E £19.95 Micro Maths G.C.S.E £19.95 Business Italian Business French Business Spanish Business German	Junior Playtime (4-8 yrs)£10.95 Ultimate Quiz (5-Adult)£10.95 Ultimate Sums (5-mid teens)£10.95

MISCELL ANEOLIS

D001/0	Locoscript 2 User guide£19.95
BUUKE	Locoscript Locomail, Locospell£8.50
BOOKS	Looking into Locoscript 2 Amst£16.95
5 Hour Word Proc Amstrad PCW£6.95	Mallard BASIC PCW Intro & Ref£9.95
All in One Mini Office Profes£11.95	Mastering Amst PCW 8256 8512£9.95
Amst 8256 8512 More Wdprocessor£9.95	Ops Guide Amstrad CPC PCW 2 Ed£20.00
Desktop Publishing Amstrad PCW£9.95	PCW Machine Code£13.95
ocomail User Guide£19.95	PCW Supercode£13.95
ocoscript 2 & Amst PCW Comp£11.95	Program Your PCW (Mallard)£8.50
ocoscript 2 & Mail Spell File£10.95	Using Amstrad Word Processor£9.95
ocoscript 2 PCW 9512£9.95	Using The Amstrad PCW 9512£10.95

MISOFFFWIA	
rinter Cable CEN36-CEN36	(2 pcs) (1.2 m)

for UK & BFPO orders only.

A to Z Computer Services

* Quantity orders please ring **OFFICIAL ORDERS FROM EDUCATION & GOVT AUTHORITY ARE WELCOME (£50 MIN)**

Prices subject to change without notice, and



132 Heath Road, Twickenham, Middx. TW1 4BN



OPENING MENU

FUTURE PUBLISHING, BEAUFORD COURT, 30 MONMOUTH STREET, BATH BA1 2BW TEL 0225 442244 FAX 0225 446019

EDITOR Sophie Lankenau

ART EDITOR Harriet Athay

TECHNICAL EDITOR Karen Donaghay

STAFF WRITER Martin Le Poidevin

DESIGN ASSISTANT Paul Tudor

ADVERTISEMENT MANAGER Elaine Brooks

ADVERTISEMENT EXECUTIVE David Coultas

AD PRODUCTION Frances Peters

AD SERVICES COORDINATOR Annie Gronow

CIRCULATION DIRECTOR Sue Hartley

PUBLISHER Simon Stansfield **PUBLISHING DIRECTOR Kevin Cox**

ART CONTRIBUTORS

ARTWORK Barbara McGavin-Edwards 0225 337162

COVER ILLUSTRATION Symon Hayes 0272 553550

COLUMN ILLUSTRATIONS Jolyon Webb

COLOUR PHOTOGRAPHY Jonathan Fisher

PHOTOGRAPHY Paul Cox 0602 790502 COLOUR ORIGINATION RCS Repro, The

Maltings, Teign Road Newton Abbott.. Devon 0626 334545

PRINTED AND BOUND BY Chase Webb.

St Ives Company, St. Austell, Cornwall

DISTRIBUTION (UK and EIRE) Future Publishing Ltd 0225 442244

(OVERSEAS) COMAG Ltd 0895 444055

THE OLD BARN, SOMERTON,

SOMERSET TA11 7PY TEL 0458 74011

MAIL ORDER QUERIES Justin Wharton

SUBSCRIPTION ENQUIRIES Christine Stacev

© FUTURE PUBLISHING LTD 1991

8000 Plus is an independent publication. Future Publishing Ltd have no link with Amstrad plc. We welcome contributions from readers, but cannot rantee to reply to all correspondence, ment for accepted freelance articles is made 4 ks after publication date.

We take great care to ensure that what we print is accurate, but we cannot accept liability for any mistakes or misprints. No part of this publication may be reproduced in any form without our permis ABC - Jul - Dec 90 - 25,009

YOUR GUARANTEE OF VALUE

This magazine comes from Future Publishing, a company founded just six years ago, but which now sells more computer magazines than any publisher in Britain. We offer:

Stronger reviews. We have a cast-iron policy of editorial independence, and our reviews give cleabuying recommendations.

Clearer design. You need solid information fast. So our designers highlight key elements by using charts diagrams, summary boxes, annotated photographs, and so on.

Greater relevance. At Future, editors operate under two golden rules: Understand your readers' needs Satisfy them

Better value for money. More pages, better quality:





10 LIVING TOGETHER



57 PRINTER REPAIRS



90 COMPETITION!

FEATURES

10 LIVING TOGETHER

The PCW and the PC exist, traditionally, in a state of friendly rivalry. This month, Karen Donaghay calls a truce between the two, and looks at the benefits of making - and staying in - contact

21 LOCOPLUS: LOCOSCRIPT SURGERY

Can't get to grips with LocoScript? There's help and advice for everyone in this month's three page trouble-shooting guide to your favourite word processor

24 LOCOPLUS: LOCOFILE TUTORIAL

In the second of our step by step guides to LocoFile, Karen Donaghay shows you how to plan and set up a customer database

34 FAIR PLAY

Producing a script for a radio play involves more than just a clever plot. Nick Vandome equips you with the essential inside information to help you get your work on to the airwaves

43 BEGINNERS' GUIDE

This month, we delve into the world of spreadsheets. What are they? How do you use them? Can they really make any difference to how you handle your home or business administration? Don't miss our in-depth exploration!

57 DAISY PAINS

Poor printout quality is not always the result of a worn out ribbon. This month's step by step guide shows you how to rectify one of the most common daisywheel printer problems - and save hefty repair bills into the bargain

REVIEWS

28 LOCOSCRIPT PC

It's relatively new - and now it's greatly improved. Steve Patient looks at the recently upgraded version of Loco PC

32 BOOK LOOK

46 JOINING THE JET SET

Small and silent though it is, the Canon BJ-10e Bubblejet printer packs a powerful punch in the world of PCW printing. Alec Rae investigates

REGULARS

5 NEWS PLUS

If it's happening, we know about it - and you'll read it here first!

15 PROTEXT GUIDE

30 CASE IN POINT

Karen Donaghay visits the bright sparks of Durham University and finds a PCW creating and stealing - the limelight

39 MICRO DESIGN WORKSHOP

Alec Rae shows you how to make the headlines with the help of the popular DTP package

51 SPEAKEASY

Creative Technology's Nik Holmes airs his views

53 SUBSCRIPTIONS

Take out a subscription and ensure that you're never without 8000 Plus again!

62 LISTINGS

67 LANGFORD

68 TIPOFFS

Five pages of essential PCW hints, tips and advice

75 GOOD SOFTWARE FILE

82 SPECIAL OFFERS

Goodies galore at prices you can't afford to miss

85 POSTSCRIPT

90 COMPETITION

Three luxury PCW keyboards up for grabs!

Have you ever wanted to...



LocoFile is to a card index as
LocoScript is to a typewriter! You can
simply automate your address book or
index and cross-reference books. You
can choose to print labels or keep records
of customers or club membership —
almost anything you can think of!
Information is kept sorted into order —
alphabetically, numerically, or by date,
and at any time you can instantly call up a
record on screen.

If you have a PCW 9512

Then for only £34.95 LocoFile will work with all your existing LocoScript software.

And if you have a PCW 8256/8512

If you are still using the original LocoScript 1 software, then LocoFile with LocoScript 2 is ideal for you . For £44.90, you get all the benefits of LocoFile plus LocoScript 2, the faster, more powerful version of LocoScript – at a saving of £20 on the separate prices of LocoScript 2 and LocoFile.

....then you need LocoFile

To receive a copy of our 20 page brochure on the LocoScript Family or see LocoFile in action, please phone Katy Buchan on 0306 740606 for the name of your nearest Locomotive Software Authorised Dealer.





With Spring very definitely in the air, we've decided to yield to the season's influence, and take a fresh look at a well-worn topic.

The PCW/PC relationship, which suffers more as a result of users attitudes than anything else, can be a very fruitful one. With so many of your favourite PCW software packages being released in PC format these days, there's an awful lot which PCW owners can teach other users about such programs. It can be frustrating to have to switch between machines in the transition between home and your place of

work, so we've equipped you with some useful pointers as to how to make that journey more comfortable. It's not a case of deciding which machine is better than the other, but rather of cultivating the rich supply of common ground between them.

This month also sees the release - and evaluation - of the first ever 'alternative' PCW keyboard. A sleek little piece of hardware it is too; and we're giving you the chance to see for yourselves, in a special competition. We've got three keyboards to give away, so

send your entry in while stocks last!

And, if Spring has put you in the mood for a spot of cleaning - or overhauling, to be precise - check out our fully illustrated printer maintenance feature on page 57!

We're also putting the rather nifty Canon BJ-10e Bubblejet printer through its paces - and there's a special star guest from the PCW industry at the helm of this month's Speakeasy, too.

It's an action-packed issue - so, pull up a chair, make yourself comfortable, and enjoy this month's (Fool free guaranteed) 8000 Plus!

WELCOME TO THE PCW!

SCA launch an "improvement" package for newcomers to the 8256

Amid continuous rumours that a new PCW is to hit the market, we can reveal that new users are still flooding to the existing machine in their droves! The latest tempting offer from Amstrad in the national press—an 8256 for just £299—has seen the PCW selling like hot cakes.

And SCA Systems, a company who believe in striking while the iron is hot are backing up the boom with an exciting new release. Their new product is called PRO 8256, and they describe it as a "low cost

simple upgrade to improve the capability of the PCW 8256".

It provides enough memory to bring the 8256 in line with the more expensive PCW 8512s. And it also provides a revolutionary built-in interface, allowing an external printer and any other add-ons to be connected to the back of the PCW.

First time buyers don't have to worry about installation - or the protection of the warranty. The PRO 8256 simply slots on to the expansion port at the back of the PCW. To get down to facts and figures,

this provides 256K of RAM, one RS232 serial port, and one parallel port. The only thing missing is a through port.

Like other SCA products that have gone before, such as the Rampac, the PRO 8256 can be used with LocoScript or CP/M without problem. Also in line with previous releases, you can continue to expand your RAM as and when you wish. The PRO 8256 can be purchased from any Centresoft dealer or direct from SCA by calling (0903) 700288. And the price, at £86.25 (inc. VAT) is definitely right.

by Karen Donaghay

CARRY ON, DOCTOR!

Here at 8000 Plus, we are often to be found on our collective soapbox, extolling the virtues of backing up of all your files. Nonetheless, accidents do happen, and Dave's Disc Doctor service has just had another bumper financial year. We're delighted for Dave, because all the profits from his service go to charity. And last year, that meant a whole £15,000.

This was the result of salvaging nearly 1000 discs, sent in by the PCW-ing public at the prompt of the dreaded error message "Address Mark Missing". And our readers are not the only ones to support Dave in his efforts.

Locomotive Software have just donated a copy of LocoScript PC to the company, and National Power have kindly provided the machine to run it on. So, Dave is currently making plans to include LocoScript PC in his rescue repertoire.

If you do have a damaged disc and think that it's a job for Doctor Dave then the address to send it to is 41 Tutsham Way, Paddock Wood, Kent, TN12 6UA. Dave Smith can be contacted on (089283) 5974 for further details.

OLD FAVOURITE

For those who fit into any one of the following categories: rabbis, church ministers, sabbath school teachers and all biblical scholars – the following news will no doubt revolutionise your life. Even if you are none of the above, this may still be of interest, providing you can speak Hebrew.

Just released is the whole of the Old Testament in its mother tongue. It is available on six LocoScript discs, at a cost of £38 for the lot (or £29.50 for students). Any individual disc can be obtained for £8.

Writing in Hebrew does of course bring its own problems: tiny vowel points, obscure punctuation marks and text that goes from right to left. Dr Instone adapted LocoScript to allow Hebrew text way back in 1989 and this upgrade is still available for £13.95.

The address to write to is the same: Dr David Instone Brewer, 12 Crundale Crescent, Llanishen, Cardiff, CF4 5PY and the number to ring for further details is (0222) 758484.

THE YOUNG ONES

Many of you have bestowed cash on the Star empire, by buying one of their printers. If so, you may be pleased to hear that a small portion of your hard-earned pennies have gone to what can only be described as "a good cause."

Star are running a competition entitled "The World and our Future". It is open to schools around Britain and the challenge is to produce a project on such topical subjects as global warming or today's 'throwaway' culture.

We welcome news of the competition; 8000 Plus often encourages you to think green by re-cycling your ribbons, and repairing your printers rather than throwing them on the scrapheap,

For competition details, contact Star at The World and our Future Competition, Byron House, Wallingford Road, Uxbridge, Middlesex, UB8 2RW, telephone (0895) 52131. Top prizes include computer equipment, and regional winners will be taken to Japan for a cultural exchange.



From printers to ecology: Star are making a concerted effort to encourage young minds everywhere to think green

DVANTAGE! PCW VISA

 FEATURING THE BEST PD. SHAREWARE & COMMERCIAL PROGRAMS FOR THE PCW

TRIED & TESTED

MENU-DRIVEN WITH INSTRUCTIONS

Our prices include VAT & Postage

HOME ACCOUNTS

QTY	PRICE
1 Disc	£5.95
2 Discs	£9.95
3 Discs	£13.95
4 Discs	£17.95
Over 4 Discs	£17.95 (each) £4.50

HOME & BUSINESS

FILE INDEX £5.95 Keep a mailing list, addressbook, club membership file or catalogue your records, CD's, stamps or books. Similar to a card index system or Filofax, comes with sort and printer

routines. Easy to use.

A new home accounting program written by a UK author with all the facilities you need to track your bank account and plan your budget.

HOME VIDEO Keep track of your video collection with this purpose-built program. Offers four Sort options and Forms Management System to print in order of title number, video number, global alphabetic or unique.

HOME INVENTORY/HOME INSURANCE Record your valuables for house contents insurance. Or how much money you're spending, the value of your stamp collection, the value of your assets. Or use a simple stocktaking program.

PRINT MASTER (dot matrix)
Now you can use your PCW and printer to good effect by designing and printing your own customised Letterheads, Stationery, Calendars and Greeting Cards. Also prints signs

Printmaster FOLIBOA (2 disc set)
Features a wide range of over 600 graphics for use with
Printmaster plus GALLERY program to view graphics on-

PRINTMASTER TOOLBOX (2 disc set)

LETAFONT (dot matrix)

Change the letters and revitalise your PCW screen with this set of 16 new fonts. Works with most CP/M-based programs. Edit your own set of fonts and even print them out.

EXPERT SYSTEM Use your computer for decision making, and problem analysis. Build up a knowledge base on any subject then, by answering a series of questions, reach a logical conclusion.

THE DESKMASTER Comprises a desk-top appointments calendar, calculator, memo-writer, card-file database. Plus Label Printer, Home Accounts, Mortgage Calculator, Weather Forecaster.

KERMIT & FRIENDS Plenty of programs for data transfer between computers (local/ remote) Access Viewdata, Prestel, Databases and Bulletin Boards. With Kermit, UKModem7, MEX and verious communications utilities.

HI-HO FILE TRANSFER Originally issued at commercial prices this very straightforward menu-driven program offers fast file transfer in and out of your PCW (needs serial interface and null modem cable)

Text files containing lists of all the UK STD codes and corresponding exchange names in numeric and alphabetical order. Files are squeezed to get then on one disc.

PROGRAMMING

THE Z80 PROGRAMMER €5.95 A complete Z80 Assembler creates an executable .COM program from your Assembler file. Plus Z80 Disassembler, Debugger, Library, 8080 Disassembler, Z80 to 8080 Translator,

DAZZLESTAR The powerful Z80 Disassembler with full set of associated

THE C PROGRAMMER Not sure which language to go for? Try the Small C Compiler, a practical and useable introduction to C. The disc includes source code and documentation. Produces executable .COM programs.

C TOOLBOX Examples of C at work. C source (for a variety of compilers) with .COM programs. As a bonus the programs are quite

PROLOG - 80 €5.95 Fascinating introduction to Al. I/O control, database manipulation, global variables, arrays, blocks, unification etc. With editor.

THE LISP PROGRAMMER £5.95Find out more about this fascinating Artificial Intelligence interpreter. Plenty of on-disc documentation.

JRT PASCAL (2 disc set)

A professional-quality Pascal Compiler which comes with extensive documentation and plenty of source code examples.

A comprehensive FORTH compiler which produces executable programs. With extensive documentation, library files, utilities.

Four ways to buy:

PHONE: 0242 224340 with your ACCESS or VISA number

2 FAX: 0242 226755

3 POST your Cheque or Postal Order

4 COLLECT from our showroom

UTILITIES

INSTA-MENU £5,95 Locoscript-style menu presentation for CP/M programs. Easy access to user areas, simple cursor-controlled program selection for running, typing, erasing and copying programs. A good "front end".

FILE CONTROL features Copy, Delete, Rename, Print Change User Number, Change Attributes, Log, Sort, Go To and Word Processor-style text file editing, DISC CONTROL features Disc Map, Disc Parameters, Sector Editor, File Editor and Unerase.

COMPLEAT UTILITIES NSWP Newsweep one key erase, copy rename and print plus many other features. SUPERZAP Disc sector editor - edit by track/sector or by filename, DISCKITA disc formatter, 178k data format and 5 1/4" second drive, SCREEN BLANKER plus a dozen more useful programs.

TEXT PROCESSING UTILITIES Print text (eg Spreadsheet) sideways on your printer, SORT a file into alphabetical order, WORD COUNTER for Locoscript or ASCII, WSCLEAN, CALENDAR GENERATOR, SPELLING CHECKER, SCORING CARD, BANNER Printers, TYPEWRITER emulator, SETPAPER, SETPRINT paper and crinter control.

DISC ORGANISATION 25.95
CATALOGUE your discs and produce a printed index, archive files and save disc space, MENU SYSTEM, FILE DATING SYSTEM, DISC UTILITY, SQUEEZE/UNSQUEEZE will save up to 40% disc space.

HIGH LEVEL LANGUAGES

NEVADA COBOL COMPILER £33.95 NEVADA COBOL COMPILER
COBOL is an industry standard data processing language, suitable for business applications. Based on ANSI-1974
Standard COBOL, Nevada features runtime error messages, random access and sequential files and integration of ndom access and sequential files and in sembly language using the DR MAC assembler.

NEVADA PASCAL COMPILER Offers floating point to 14 digits, trace facility, runtime error messages, linker and assembler, 26 built-in functions, 9 built-in procedures, 15 I/O functions, random, sequential and indexed

file I/O functions, histogram activity analyser and access to

NEVADA FORTRAM COMPILER £33.95
Adheres closely to the ANSI x3.9-1966 standard with some 1977 extensions. Advance features include THEN, ELSE, COPY, CHAINing and TRACE. With two-pass assembler, random I/O file, 25 general purpose subroutine/function library and runtime error reports. No linking.

MIX C COMPILER A professional quality C compiler which produces stand-alone, executable .COM files from your C source code. Closely adheres to the original Kernighan-Ritchie standard with full floating point arithmetic. Ideal for newcomers to C as the manual includes a very good tutorial section with plenty of

MIX C EDITOR split screen, WordStar compatible with manual E19.95
MIX C TUTORIAL EXAMPLES - ready typed ready to compile £5.95
MIX C GRAPHICS LIBRARY & ASM UTILITIES £10.95

HISOFT C COMPILER	£44.95
HISOFT ZBASIC COMPILER	£64.95
HISOFT MODULA-2 COMPILER	£49.95
HISOFT PASCAL 80	
HISOFT FORTH	£24.95
HISOFT DEVPAC 80 V2	£44.95

Hisoft products include the popular ED-80 text editor, binder and printed manual. All NEVADA compilers are supplied with a

Thinking of changing your computer? Then contact Advantage BEFORE YOU BUY. We offer free advice for home and business users. Advantage are stockists for a wide range of commercial programs for the PCW, Atari ST, Amiga 800, PC and BBC computers - call in or phone for details. Dealer enquiries welcome

LOCOSCRIPT PC	£124.00
LOCO-LINK PCW-PC file transfer cable and S/W	£29.95
TEN MAXELL/PANASONIC 3" DISCS	£19.95
TEN SOLID PLASTIC DISC CASES	£2.95
INTERFACES Serial and Parallel ports for PCW	£49.95
PRINTER CABLE Centronix to 25-way D-type	£10.95
NULL-MODEM CABLE for file transfer	
25-way D-type	£10.95
CARROL SCHOOL SECTION	SOURCE STREET

GAMES & EDUCATIONAL PROGRAMS

Based on the popular TV Quiz "COUNTDOWN". Make the longest word you can from your chosen letters " VERB - CONSONANT" - the computer will do the same. The longest word wins! Excellent graphics and gameplay.

TRIVIA QUIZ A multi-choice game with plenty of fast-action graphics and sound, competitive scoring and a wide variety of questions. Fun for all ages. "Guaranteed completely trivial" - 8000 Plus.

SLIDER \$5.95 A unique computer version of the popular mechanical sliding

squares puzzles. Pictures are divided up on a grid of squares, then mixed up; your task is to slide them around to reassemble the pictures.

A well-presented and challenging version of the popular board game, played against the computer. Large, clearly presented board making the most of PCW's hi-resolution graphics.

Plenty of entertainment with these well-known classics -Pacman, Space Invaders, Bomber, Maze Game, Hungry Snake, Pressup, Ping-Pong, Return To Arg, Game of Life, Bugs & Golf.

PIT YOUR WITS €5.95

Pit your wits against the computer with these popular games -Chess, Othello, Mastermind, Spellit, Rubiks Cube, Stone (Awari), Biorhythm Plotter, TicTacTo and Word Search Puzzle

JUNIOR CHALLENGE An entertaining selection for youngsters - Aerial Antics, Battleships, Burglar Bill, Car Park Blues, Fly Race, Biblical Hangman, MasterMind, Post Haste, Solitaire, Table Tester, Widget Factory.

AMUSEMENTS AND DIVERSIONS

Startrek, Lunar Lander, Merchant, Trade, Boggle, Baseball, 3D Noughts & Crosses, Chase, Quest, Homonyms, Horse Racing, Civil War, Baccarat, Craps, Hunt The Wumpus, Swarms, Blackjack, Square, Crazy-8, Hangman American Football, Queen, Spies, Nim, Dots, Dragrace, Pilot, Strobe.

COLOSSAL CAVE ADVENTURE

The famous game which originated on main frame computers, with save and re-load, Plus BESTIARY, "A well-produced, novel adventure" - Bill Brock Adventurer's Guide. PCW CHALLENGE

Four entertaining cult games from Nemesis: The Trial of Arnold Blackwood, Arnold Goes To Somewhere Else, The Wise And Fool Of Arnold Blackwood, Brawn Free. "A good challenge lots of hints and tips and a good range of responses' - 8000 PLUS.

LOGO LOGIC

Educational programs for DR-LOGO (supplied with your PCW):- Plan the shortest route with AIRLINER, Play ANAGRAMS and HANGMAN, use DRAWING with the LOGO turtle, Write and print tunes with MUSIC printer and use the DISC LABEL PRINTER.

FUN WITH GRAPHICS

PCW-DRAW - simple drawing program - create, save, edit, print pictures BIO-MORPH Start with a simple figure after a few generations you have a set of complex and unique creatures Plus GRAPHIC ROUTINES and README for 45 character PCW screen width.

WORD - SPREAD - BASES

WORD PROCESSOR

A powerful WordStar-like editor which offers full screen editing, full block operations, windowing, automatic horizontal scroll (line length up to 255 characters), macro functions, word-wrap, formatting, pagination, find/replace, pagination, undelete and

FOR home accounts, mortgage repayments, business and multiple calculation exercises. 60 rows by 26 columns. Menudriven - enter text, numeric value or calculation (+ - x / with reference to any cell or total). Print facility and documentation.

A small relational database for storing simple data and producing reports from the data. Uses free format query language with macros and commands plus on-line help. A good introduction to the concept of databases. Disc also contains a useful Inventory Database.

KEYBASE II

Standard Valency Valendas

Report Search, Data Entry, Erase, Count Records, Set Report Fields, Run Report Search, Display Last Output, Repeat Last Search, Search & Extract, Set Key Index, Print Records. Capacity limited on Shareware version "KeyBase is well designed simple to use and it works. A good value database." - 8000 PLUS.

NUMBER CRUNCHER

Does for calculations what your Word Processor does for text. Retrieve mathematical expressions (formulae) from disc files, calculate their results, modify them and store them back on to disc. Create files of formulae. Menu prompts and on-line help. Up to 15 sig figs., over 100 characters, arithmetic, trig, log and

CUTTING CORNERS

Diagonal text can be very effective, and is now possible with the new Micro Diagonals.

Micro Design is not the sort of program to cut corners – much to the despair of many aspiring typographers. But now with MicroDiagonals you can cut a corner with ease, and to good effect. A new product from Exemplar allows text to be written diagonally across the page – known in the

trade as a flash.

It is a widely used technique, particularly for eye-catching advertisements. The gaze immediately alights on the flash simply because it is at an angle to the main text. When it carries a message such as "New" or "Bargain", the hype is difficult to ignore.

The new package comes from the creators of MD Cleartext – a popular font collection for Micro Design. Called MicroDiagonals, it costs £18.50 (including postage) and contains over 400 separate templates. As Exemplar so rightly point out, this is a first for the PCW. In fact they describe it as "the essential add-on for Micro Design users in 1991."

More details can be obtained from the Exemplar crew. The address to write to is Exemplar Design, P.O. Box 683, Bath, BA1 1XU. You can also telephone them on (0225) 315131.

KEEPING TRACK

Club 29 Computer Systems have recently finished work on a brand new record collection cataloguing program, which looks set to help all music lovers keep a track of their favourite discs.

The database is designed especially for the job, and will hold details of artist, label, catalogue number, year of release, and details of all the tracks. It has a 1,200 album capacity when used on the PCW8512/9512, although that is seriously reduced on the PCW8256.

Purported to be very user friendly, it is able to locate an album from just one word on one track title.

"The Album System" will be available later in April, and costs £13.99 (plus postage and packing) from Club 29 Computer Services, 3, Avon Close, Winnersh, Berks RG11 5PG.

8000 Plus will be taking The Album System out for a spin in the near future.

Memory Lane

Three Inch software have fond memories of their past abode but wish to tell us that they have now moved on to pastures new. Their address is 194 Amyard Park Road, Twickenham, Middlesex, TW1 3HY. So if you are lost for words and want to contact them for their English Thesaurus, or any other Three Inch products, this is the place to write to. The new telephone number is (081) 8924363.

BRIGHT AND BEAUTIFUL

Now you can bring a spot of colour into your life, if you have a DeskJet printer.

Rodesign have just released a range of inks, for use with the Hewlett Packard range of DeskJets. The ink is simply squirted into an empty cartridge and comes in some dynamic colours: blue, red, green, violet and brown. Refilling is, according to Rodesign, an easy process, with no mess involved.

In fact they suggest building up a range of colours. You can then produce multi-coloured images, by re-printing on the same piece of paper with a different colour. So, start saving those empties immediately!

A twin refill pack is on special offer until the end of May at the price of £12.95. (The usual price is £14.95.) Rodesign also supply indelible black ink refils, for those of you who believe in the permanent things in life, and of course ordinary black refills.

Rodesign can be contacted at 195 Milwards, Harlow, Essex, CM19 4SJ, and their telephone number is (0279) 444313.

PRICE WAR - PART I

Do you need a new printer with both extra speed and quality? If so, there may be one thing that prevents you from taking the plunge, and that is the cost. Printers don't, as a rule, come cheap.

That's why, when the Citizen 124D came along it looked set to take the market by storm. At £279 it was one of the cheapest on the market. Now, the price has been beaten - and not by a competitor - but by Citizen themselves.

Same printer, same company: but Citizen have dropped the asking figure to a mere £249. It is, they say, one way of tempting PCW owners away from their native 9-pins. With VAT added it will cost the home user £286.35 – which is still a good budget buy.

Citizen confidently predict that the 124D will soon be a best seller within the UK. Sales are already doing extremely well in Europe. The success of the printer in the UK has yet to be proved, but many users are continuing to upgrade their 9-pin printers to the 24-pin variety. With such aggressive pricing, Citizen's model must surely be one of the front-runners. The Citizen 124D printer was reviewed -



A £30 discount on this already budget priced printer could well make it a best-seller

with very favourable results - in the December 1990 issue of 8000 Plus, and the company themselves can be contacted on (0895) 72621.

Hot off the press!

The news in the national press of late is - the PCW is great! The **Guardian recently** published an article by 8000 Plus contributor Mike Gerrard, who staunchly defended the machine, stating (among other things) that, "The PCW is all that most small businesses need to run their accounts." Still patting our machines with pride after that remark, we then went on to read, "Most packages can be adapted for use in any business, as 8000 Plus has been demonstrating over the past few years with its Case in Point series." We've always said that Mike was well-read.

Secret code?

March's huge computer show in Hanover was rumoured to be the launching pad for a new range of Amstrad computers. We waited with bated breath. Would a new PCW be revealed? "Nein," replied various Amstrad big-wigs. "Phew," replied the 8000 Plus team, having already prepared the lead story for this month's News Plus...

MAPLE THIEF

If there was one computer printer that could be classed as a household name then it could well be Epson. But, according to them, their well-known title is being taken in vain.

An influx of Canadian imports (such as printer ribbons) appear to bear the famous Epson mark but in fact, they are not actually genuine Epson products. Although they do have different packaging, it is apparently, easy to be misled.

With touching concern, Epson feel at pains to point out that there is a difference between the two.

Anyway, the moral of the story is that if you want the genuine Epson article, then have a good look at the small print before you buy, and check that it states Epson (UK) Ltd. Beware of imitations!

PRICE WAR - PART II

"Hi spec, low cost," say Brother of their new dot-matrix printers. At £319 for a 24pin printer, and £239 for a nine-pin variety, they are certainly well below the average price. But what about the spec, or in other words, what exactly can it do?

A spokesman for Brother said that the new printers, (known as Brothers 1324

and 1309) avoid the hazards of slow speed and restrictive paper handling. They can cope with a variety of stationery and the 1324 (the 24-pin) can produce a page at the rate of 72 characters per second in NLQ. And when you compare that to 12 characters per second on the PCW's dotmatrix – that's fast!



Brothers in arms (models 1324 and 1309 to be precise), are both low in price and pretty nifty too...

ITS A GIFT!

Computer trainers often need a large number of manuals and programs for their classes. But this presents something of a financial dilemma. Do they fork out the asking price several times over, or worse still, should they flout the copyright laws?

If they are using any software from Cornix software they don't have to do either. A special multi-user licence is the answer to this tricky problem. What's more, colleges, schools and all other places of learning can now get a special deal from Cornix, with up to 40% knocked off the price.

Cornix are known for excellent programs such as Simple Accounts II, Job Estimating and Product Costing, and they aim to be "user-friendly and cost-effective" Cornix have just re-released Card Index, a database they accurately describe as "modest, and easy to use". For more details of this and other Cornix products, contact the company at Tavistock House, 34/36 Bronham Road, Bedford, MK40 2QD. Or call them on (0234) 219969.

PERESTROIKA FOR PRINTERS

Those of you who need to produce Russian script on the PCW9512 will be pleased to hear that they can now do so.

This is thanks to the efforts of a company called WAVE, who provide a Russian printwheel for the 9512. The price is £10.56 and it is one of a stock of 200 types of printwheels.

"We are the only company in England who actually stock every available printwheel for the PCW9512," commented Mark Ralph from WAVE. So, if you've ever wanted to write a letter to Gorbachev, now is your chance. WAVE are at 1 Buccleuch Street, Barrow in Furness Cumbria LA14 1SR (0229) 870000.



EASY PC

Many PCW users will be familiar with the financial package Total Accounting. The word is that the program is now available for the PC as well, with a few extras such as the facility to print invoices on your own letterhead.

Registered PCW users get a 20% discount on the PC version if they buy before 30th September. The price of the PC program is £99.50, or with the discount £79.50. Derek Rogers Professional Software can be contacted on (041) 3348902.



PCW user groups are one of the best ways to learn about getting the best out of your PCW. Like all clubs, there is plenty of room for chat and informal discussion.

The informal atmosphere engendered by PCW clubs became immediately apparent to the founder members of the Gloucestershire PCW Users Club (no real name agreed as yet), who convened in a Gloucester pub late in February. Five of the seven people who replied to the letter about the club in the January issue of 8000 Plus – where else? – were able to attend the session. A small amount of business was transacted, but the main part of the evening was spent in the more important business of discussing the PCW. Further meetings are planned.

If you are interested Dave Bailes is the man to talk to, and (0453) 828281 is the number to ring.

LONG LIFE CLUBS

Of course, we wish all new clubs well, and hope that they have the continued success which has attached itself to the Hereford Computer Club. Two years old last month, the group goes from strength to strength, with upwards of 80 on their mailing list, 50 of whom are active members of the PCW section. At the moment they are looking into several possible areas of expansion – such as shareware schemes and a small book agency. On top of that they offer helplines, regular news sheets and are constantly looking to make contact with other clubs.

Recent events have included talks on Mini
Office Professional and Flipper, and the April
meeting (the PCW group meets on the first
Wednesday of every month, in what are described
as 'comfortable' venues) will be ideal for
beginners, discussing creating documents,
making templates, mail-merging and inserting

FEBRUARY WINNERS!

February's competition offered to get your business off to a good start, with a range of professional, yet easy to use, Cornix business programs. There were hundreds of entries from our enterprising readers, and three lucky winners were picked from the 8000 Plus hat.

So, here they are; Congratulations to K. Falconer of Kirkaldy, Fife for winning the Simple Accounts II package, also to Maureen Eby of Horton cum Studley, Oxon – a Job Estimating Package is on its way to you, and finally – D.T. Lloyd from Westhoughton, Bolton – you are now the proud owner of a Product Costing program. The answers, by the way, were as follows:

1.Peter Lilley 2. Sir Ralph Halpern 3. ICI 4. A grocer's 5. Anita Roddick

text. Details are available from the energetic David Rose, on 0432 267123 (note the updated telephone number).

APRIL MEETINGS

Elsewhere in the country, the Teesside group were undaunted by February's bad weather, with three new members braving the arctic conditions to join the fun. Their April meeting – which looks like being tropical by comparison – is on the subject of the Mini Office spreadsheet graphics. Details from Gladys Baker on 0642 580018. On receipt of an SAE she will also send a rough map, giving directions to the meeting venue.

The Hampshire and the M25 User Groups also have April meetings planned – the latter will be looking at Protext and DTP applications.

Scotland is well represented by the ScotWest group, who have now started a disc correspondence/tuition scheme. They also run a newsletter – called CHR\$(7), which reaches places as far apart as Dunfermline, Edinburgh and Inverness.

And speaking of Newsletters, we are more than happy to receive news and newsletters from any club. We cannot guarantee to answer all correspondence – but we will read it all and try to mention it as much of it as possible in this column. News by the first week of the month, please; which means that if you are planning to write to us wth a contribution for our May issue, then we'll need to receive your correspondence by the 7th April.Thanks!

SOME PLEAS

Les Irving lives in Arlesey in Bedfordshire, and is very interested in starting a club in that area – the counties he mentions are Herts/Beds/Bucks. If you want to get in touch with him, he is at 2, Station Road, Arlesey, Beds. SG15 6RG. Mr Bill Chope from Birmingham is also desperate to get in touch with a club in his area. (021) 449 3155 is the number if you can help. Finally Mr E Buck is in Nottingham, and wants to join a club. Any Nottingham knights in PCW armour can contact him on (0602) 787573.

Many thanks for all the mail we get asking about groups. Again, we cannot guarantee to answer mail personally, but will do our best to make sure that the right people get to hear about your requests. The first thing to do, though, is to consult the Good Club Guide, on page 67 of the magazine, to check if there is an existing club in your area.

STARTING UP

All that remains to be said is that if you are starting up a club, then please let us know, so that we can keep our records up to date, and perhaps give a helping hand.

It would be great to be able to build up a whole network of PCW user clubs across the country, all helping each other! The address, as always, is Club News, 30 Monmouth Street, Bath, Avon BA1 2BW.

POWER

Designed and manufactured in the UK, SCA products are backed up with a first-class telephone support service and a money-back guarantee





SCA Rampacs

- Compatible with all Amstrad PCWs.
- Simply plug into the expansion port.
 - Tested Locoscript compatible by Locomotive Software.
 - Through-connector allows continued use of other peripherals.
 - Three versions available-512K, 768K and 1.5Mb.
 - Upgrades available to existing Rampacs.

To upgrade your existing SCA Rampac simply send your Rampac to us and we will upgrade and return it within 48 hours 512K to 768K, £30.39 + VAT = £34.95 post free 512K to 1.5Mb, £100 + VAT = £115 post free 768K to 1.5Mb, £75 + VAT = £86.25 post free

512K

- Adds 512K of RAM. Instantly!
- Only £99.00 + VAT.
 Total £113.85 postage free.

768K

- Will upgrade your PCW 8256 to a full 1Mb.
- Only £119 + VAT.
 Total £136.85 postage free.

1.5Mb

- Three times the memory of basic Rampac for only twice the price!
- Allows Locoscript users to use the maximum 2Mb memory on 8512/9512 machines.
- Flipper 2 recommended for CP/M users.
- Only £199.00 + VAT.
 Total £228.85 postage free.

If you use Locoscript you should have a Rampac- but don't just take our word for it, see what the magazines say-

The Rampac will enhance any PCW and I have no hesitation in endorsing its usefulness.

Amstrad PCW July 1990

It's very good
value and provides
the easiest way of upgrading
your memory.
8000 Plus February 1990

You can be sure that the Rampac will work with all your Locoscript 2 programs.
Locomotive Software

SCA Interfaces (serial/parallel) For Amstrad PCWs

PROFESSIONAL

- Full 8 bit Centronics parallel port for printers and plotters.
- Full duplex RS232 serial port for communications at all speeds between 75 & 19200 Baud.
- User manual supplied with details of cables.
- Only £48.00 + VAT Total £55.20 – postage free

PROFESSIONAL PLUS

- All functions as Professional
- Real Time Clock/Calender with on-screen digital clock display
- Demonstration and communications software supplied on a 3" diskette
- Automatic CP/M time and date stamping
- Only £57.00 + VAT Total £65.55 – postage free



SCA Systems Ltd., 61 Ferringham Lane, Ferring, Worthing, West Sussex BN12 5LW Telephone 0903 700288 Fax 0903 506606





Taking sides

drawback of the

Pace drive is its

sheer bulk. It can

the desk. Here at

8000 Plus, we

for a while, and

came up with the

idea of positioning

the drive on its side,

more than halving

which it occupies. .

We're not called the

experts for nothing

the desk space

you know!

account for quite a

few square inches on

scratched our heads

One major

United Stations

The PCW and the PC have always been rivals - in the eyes of their respective owners. Can they ever be friends? Karen Donaghay puts forward a peace plan

he PCW and the PC are undoubtedly the Kane and Abel of the computer world. They disagree on every possible issue; with different disc drives, operating systems and keyboards. To make matters worse, their owners then proceed to add fuel to the fire by arguing over which machine is the best buy.

But, battles aside (and it's no secret which side 8000 Plus are cheering for) the two machines do have a great deal in common. They are both designed to help the user - in the home and in the business world - by providing a range of programs to deal with letters, finances, filing and much more besides. So why is it that, despite their similar aims, they can not be used hand in hand? The answer is that age-old excuse; compatibility. Their discs are not interchangeable, and their respective operating systems are about as similar as chalk and cheese.

The resulting deadlock is no problem for PCW users who work in isolation. But for those who from time to time need to use a PC - at work or perhaps for a friend - it can be a source of great frustration.

A report, compiled on a PC at work, cannot be slipped on to disc and finished at home on the PCW. That friend down the road cannot share your mailing list for the golf-club, simply because he uses a PC and you use a PCW. But there are solutions, and we went in search of one that is functional, easy to use, and inexpensive.

The last word

WordStar are pretty big news for the PC. So if they are the only word processors on offer then don't worry. You can still play ball. If your documents are saved in ASCII, then the Word is your oyster!

WordPerfect and

Mutual understanding

However hard you try, you cannot fit a PC disc into the 3 inch PCW drive. The PC variety come in two sizes, 3.5 and 5.25 inch: both too large for the PCW. Deprived of a mutually acceptable disc, there has to be some other way of exchanging files between the two machines.

This is where a decision - based on geography, strangely enough - needs to be made. The first option available, for those with the two different machines in close proximity, is to send the information down a cable. The other, if the receiving machine is located elsewhere, is to fit a PC-style disc drive to your PCW

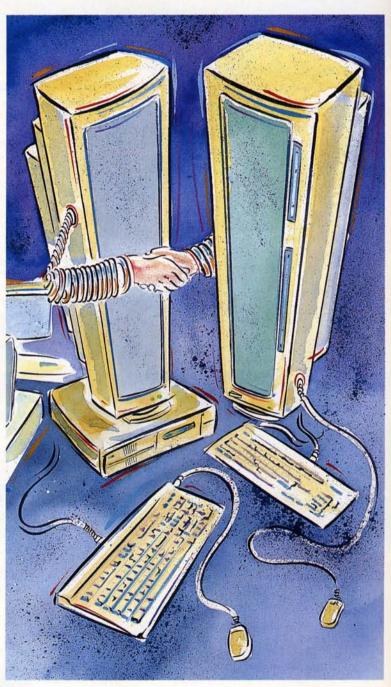
But the choices don't end there. You can opt for Locomotive Software's LocoLink package, that comes with

both cable and transfer software. Or you can go it alone and buy a cable and the transfer software from a dealer. Alternatively, if you choose to add a disc drive you can opt for either a 3.5 or 5.25 inch drive.

This month we examine two of these options in detail. Adding a 5.25 inch drive is the more expensive option of the two. LocoLink was picked to serve as a cheaper alternative.

Because LocoLink is designed by Locomotive Software, we tested out both systems using LocoScript files.

Can a letter written in LocoScript be taken from PCW to PC without any transfer troubles? What advantages does the more expensive disc drive offer over a cable link-up system such as LocoLink? And in the end, is it all worth it? These were the questions we set out to answer.



The Pace Drive

Adding an extra drive to your PCW is we must admit - rather costly. But there are advantages. For example, you can have a PC in Timbuctoo, and a PCW on your kitchen table and, as long as you can afford the postage, your 5.25 inch discs can be used by the absent PC, regardless of the distance between them.

The 5.25 inch drive we chose to install was a Pace drive. The price includes a utility program that transfers files from PC discs to the PCW, or vice versa. But more of that later. First - a few words of reassurance.

There is absolutely no need to be worried about adding a drive. If you know how to fit a plug, then that's a good start, because the two processes are more or less the same. In simple terms, the procedure is as follows. Step one is to loosen the screws at the back of the PCW, and take off the plastic casing. Once you are inside, you will find a socket where you can plug in the drive cable. Some drives also have a small power cable, and that should be attached as well. Finally, you put the casing back on, and that's that.

Both of the sockets are easy to locate - but don't just take our word for it. Why not remove the back of your PCW and take a quick look? They should be fairly obvious, but if you are still confused, check back to our step-by-step installation guide in the May 1990 issue of 8000 Plus. Or follow the instructions that come with your disc drive. Either way you will end up with a second drive - referred to forever more as the B drive.

On the right track

Your new disc drive is ready for action immediately. At the back of the drive is a small switch, marked 80/40 (meaning 80 or 40 tracks per disc). With the switch set to 80 it will work quite happily, formatting 5.25 inch discs using CP/M's Disckit or the LocoScript command from the [f2] menu. Likewise, loading and saving any PCW files on to the new drive can be done in the old familiar way.

But, although this works fine with discs formatted by the PCW, PC discs are another story. As soon you put a PC disc into the new drive, it makes a tormented, crunching noise and refuses to work at all. The reason is that the PCW will format the disc in 80 tracks, and the PC only uses 40.

Still, there is no need to despair. Instead, pick up the disc that came with the Pace drive. On it is a program called TDOS that allows you to access the 5.25 inch drive - even when it is set to the PC format of 40 tracks.

The basic premise is that, if you can't use a 40 track disc, then copy the file on to a normal A drive disc. Menus are used to guide you through the steps and the idea is that all PC files you need are first copied onto the PCW's A drive. This does of course also work in the

opposite direction, with PCW files copied from the A drive to the PC disc in the B drive. To put this theory to the test we tried to pass a LocoScript document from PCW to PC. Then we conducted a similar test, travelling in the opposite direction.

Going Loco

LocoScript is our chosen testbed and, as you may have gleaned from our pages, the program is available in two forms: one for the PC and one for the PCW. Despite looking similar on screen, they are, in fact, written in completely different ways. This leaves no alternative: you just have to take a deep breath and buy the PC version of LocoScript as well.

Once you have both versions you can then transfer documents from one to the other. We compiled a guinea pig document, called "Story", written using LocoScript 2 on the PCW (and shown in the first screenshot). The first step is to save this document in the usual way on to the A drive.

Then we re-booted in CP/M and loaded the TDOS program. With both discs at the ready - the disc containing "Story" in the A drive, and a PC disc in the B drive - we used TDOS to do an Individual File Transfer (as shown in the second screenshot).

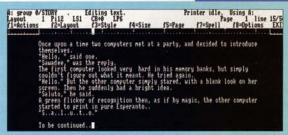
Once the transfer is complete the 5.25 disc is removed and used directly with the LocoScript PC program. When you choose to edit the "Story" file it is automatically converted into PC format (see our third screenshot). As you can see from our fourth screenshot, it looks very similar on-screen to the original PCW version.

But what about a journey in the opposite direction, from PC to PCW? Essentially, it is the same process. You write your LocoScript document on the PC, save it to a 40 track disc and run TDOS to transfer it on to the PCW A drive. One important point, however, is that the document must be saved in ASCII format on the PC and loaded as ASCII text at the other end.

This is for historical reasons. Because LocoScript PCW was written long before LocoScript PC, it does not contain an automatic conversion for PC to PCW. Instead, ASCII functions as the middle ground. It is a standard way of saving files that is used by many other programs too. (For more information on how to Load and Save ASCII files in LocoScript, see the Locus Pocus box) The general impression of using TDOS and a Pace drive is that it is quite a fiddly process (TDOS has a disconcerting habit of getting its drives muddled up). However, it can do what it is supposed to do, and make your PCW capable of communicating with the PC in a highly versatile way. It doesn't matter where the PC is and, software permitting, this method can cope with any type of file under the sun.



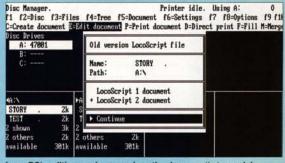
The Pace 5.25 drive, ready to be connected



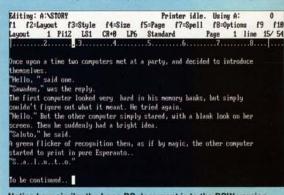
Written on the PCW, this document is ready to move over to the PC



TDOS transfers the LocoScript document to the PC's 40 track disc



Loco PC's editing mode recognises the document's true origin



Danger Zone

The TDOS menu is simple to use, and usually works just fine. But from time to time, it does get into a tangle.
Copying the program on to an A drive disc does help to prevent this: otherwise, the best way to make a clean start is to switch your machine off for a few seconds.

Single file!

If you are one of the many people who have added another 3 inch disc drive to your PCW then, cast your minds back to installation day. You may remember that there was only one extension available for adding a new drive to, so unfortunately to add a new 5.25 inch drive you will have to give up your original 3 inch B drive.

LocoLink

The good thing about LocoLink is the price: at £34.44 it is within most people's reach. But money is not, unfortunately, the only consideration. On the minus side, the LocoLink cable is a mere six feet in length.

Since very few people have a PC and PCW at such close quarters, this does limit the potential of LocoLink, or any other cable, quite considerably. The other limitation, and this is another serious drawback, is that LocoLink is designed to send files on a one way journey, from PCW to PC. There is absolutely no provision for the return journey, which is a rather odd situation for the user to encounter. They can write a document on the PCW, send it over to the PC, via LocoLink, and continue to write the document. Yet, once complete the document can never be retrieved, for use on the PCW.

In its favour, the LocoLink package is fully comprehensive, containing all you need to make those vital transfers: two programs (one to receive files at the PC end and one to send files from the PCW end) plus, of course, the cable itself. It is impressively easy to slot the cable into the printer port of the PC and the expansion port of the PCW. But, perhaps the most pleasing aspect of



Locomotive's LocoLink package allows you to swap files from the PCW to the PC - but not, unfortunately, in the other direction

LocoLink is the fact that it is very quick and easy to use. The LocoLink programs are inserted into their respective drives and run by typing LLPCW at one end, and LLPC at the other. With such simple commands, very little is able to go wrong.

Soon after, a file can be winging its way towards the PC. It is also possible to specify which drive the file is to be saved on to when it reaches the PC end, and the name of the file can be modified as part of the transfer process.

Speed is of the essence with LocoFile, and things can move even faster by sending groups of file enmasse down the LocoLink line. All those ending in .DOC, for instance, can be sent by using the command LLPCW *.DOC. This 'wildcard' system, where the variable element of the name is represented by a star, is one that many of you will already be familiar with, as it is widely used in CP/M.

Once they are safely over on the other side, the LocoScript files can be used straight away, making this the easiest transfer we've come across. All you need to do is load LocoScript PC and edit the transferred file. CP/M files can be sent to PC-land by using exactly the same method.

In short, LocoLink does have advantages but for many people they will not succeed in outweighing the drawbacks. For those who don't mind periodically lugging a heavy computer to within cable range of the other, and can put up with the one-way ticket, then LocoLink should be very kind on the pocket and not too testing on your cognitive powers either.

Unfortunately, most people need, and expect, the sort of versatility that, for rather more cash, the Pace disc drive is able to provide. For anyone who uses both the PC and the PCW regularly it is, after all, a small price to pay.

Locus Pocus

So far we have said very little about this month's guinea pig -the well-known and well-loved LocoScript. How do the LocoScript documents fare on this journey from one machine to the other? It is obvious enough that they are transferred successfully, but are there really no modifications to be made at all? Can they just be used in exactly the same way as before?

Well, the answer to those questions is both yes - and no. LocoScript can bridge the gap between PC and PCW more easily than many programs. This is thanks to the fact that LocoScript PC was designed with PCW users in mind, and so the differences were kept to a minimum. However, there are some unavoidable discrepancies and the LocoScript PC manual does list a few potential hiccups.

Printers are one such problem. Your PC and PCW are unlikely to use the same printer - but your documents are set up with a particular printer in mind.

The information about the respective printers is stored in the 'Document Setup'. If you need a printout, you must first adapt these details before you tell the program to print a document.

Another point to watch is PC to PCW transfers. As we mentioned earlier, these involve saving the file in ASCII format. To preserve the typesetting marks it should be saved as a Page image file, not a Simple text file. Incidentally, to translate a file to ASCII using LocoScript PC, the sequence is to select the file from the Disc Management Screen, press [f9], select the Export Text option and press

[RETURN]. Then select ASCII and press [RETURN] again, filling in a new document name when prompted.

On the other hand, to load the ASCII file on the PCW, use the LocoScript command to 'Create a File' and press [f1] (or [f7] in LocoScript 1). Choose to 'Insert text 'and select your ASCII document from the menu.

Committed Loco fans will be glad to know that LocoMail and LocoFile can also make the jump between PC and PCW. This is exactly the same process as used for ordinary LocoScript files, with one notable exception. When a PCW LocoFile is transferred to the PC, it needs to be "squashed" by the PC. Violent though this is, the LocoFile data is not changed in any way. All you have to do is to press [f9], select 'Squash Datafile' and press [RETURN].

Fact File

LOCOLINK

LocoLink is produced by Locomotive Software, Dorking, Surrey RH4 1YL, telephone (0306) 740606 and costs a grand total of £34.44 including VAT

LOCOSCRIPT PC

LocoScript PC also comes from Locomotive Software and costs £143.75

PACE DISC DRIVE

The Pace 5.25 inch disc drive with TDOS software can be ordered from the 8000

Plus Mail Order pages (pages 82-83 of this month's issue), for £145.00

For more information on LocoScript PC turn to this month's review of the upgraded version on page 28. To find out more about LocoLink, we reviewed the product in our November1990 issue. Finally, the 5.25 disc drive starred in our May 1990 issue, when we brought you a step-by-step guide to drive installation. Details of how to obtain Back Issues of 8000 Plus can be found on page 52.

Next month

LocoScript is not the only PCW program to seek its fortunes in the PC market. Next month we will be showing you can do your financial budgeting on both machines, using Supercalc, or transfer your records from one to the other with the dBase programs. We even look at your old favourite Micro Design which is available in PC format.

We will also take a look at two more alternatives: fitting a 3.5 inch drive or using a serial cable to join the two machines.



Typed using LocoScript on an Amstrad PCW8256

Spot the Difference

```
C:..NRDUERT.HRNN.JRHESON Editing text. Printer idle. Using C:
Layout 1 PLPS LS1 CR-0 LP6 Page 1 Line 1/ 54
f1 f2-Layout f3-Style P4-Size P5-Page F7-Spell P8-Ootlons F9 P10
th T Jamesone
Feasts and Favourse
42 The Drivee
Combesty

Dear Time
(CFotze) (#IR.)Dld Combestians Dinner(-IR.)

Thanks for being so helpful respanding our requirements for the annual dinner of the Dld Combestians, be would like you to provide the catering in the club house as discussed.

In detail we shall need:

Roast Turkey
Roast Porke
Roast Porke
10- 216.95- £74.75e
Roast Porke
10- 216.95- £715.50e
1016L+ 17- £77.25e
Please confirm that the 18th will be suitable - it is (*Italic) mest impurtant(-Italic) that we can organise everything for that evening.

Look forward to bearing from you.
```

Transferred to an IBM PS/2 with LocoLink and edited with LocoScript PC

Upgrading from a PCW to a PC used to be difficult. Now it's easy with *LocoScript PC* and *LocoLink*, because you don't have to learn a new word processor.

LocoScript PC has the same look and feel as LocoScript on the PCW so you'll be able to start work immediately. But the difference you'll really notice is the speed – LocoScript PC is much faster and more powerful than LocoScript on the PCW.

LocoScript PC not only includes the word processor you're familiar with on the PCW, but also LocoFile, LocoMail and LocoSpell plus support for over 400 different printers all in one package!

Using *LocoLink*, our unique transfer package, you can take all your LocoScript documents and datafiles to any PC. *LocoScript PC* lets you keep all your characters and formatting commands – saving you the trouble of re-typing!

So why waste time learning a new word processor when you can have LocoScript PC?

LocoScript PC costs £125 + VAT LocoLink costs £29.95 + VAT

If you would like to see how easy it is to move to a PC, telephone Katy Buchan on (0306) 740606 for the name of your nearest Locomotive Software Authorised Dealer.



HIGH QUALITY AT DISCOUNT PRICES!

All prices include VAT & Delivery - Full money back Guarantee - Credit Card Hotline Send SAE for FREE Catalogue or telephone 0384-66269 anytime.



HARDWARE

COPY HOLDERS	PRINTER STANDS
CopyArm£6.95	Adjustable£12.95
	Adj with PaperTray£17.95
	Mobile Stands£49.95

FAX STAND & TRAY £39.00

MEMORY UPGRADES

256K Chips	£19.95
SCA 512K RAM PAC-Plug in n' Go	
	POA

ANTI GLARE FILTERS FROM £14.95

KEMPSTON MOUSE & SOFTWARE

Jeeves Desktop & daatafax software TEAC 3 1/2" B DRIVE:

Includes FREE software to Read PCW disks on a PC £89.95 Compatible External, plug in 'n Go

AMX MOUSE & INTERFACE £46.95 SCA PROFESSIONAL INTERFACE £49.00 AMSTRAD CPS 8256 INTERFACE £39.00

DON'T THROW AWAY YOUR USED FABRIC RIBBONS: RE-INK FOR £1.45 each (BLACK)

Data Format Transfer Service 500+ formats 3", 31/2", 51/4" IBM PC (& compatible) Applemac etc. £9.95 per disk, inclusive.

Cotswold House, Cradley Heath, Warley. B64 7NF. All products Guaranteed, All prices include VAT & Delivery, We accept credit card, cheque, postal order & Local Authority, Government Purchase orders.

FAX 0384 66269 TEL

SOFTWARE

dBase II£39.95	LocoScript PC£105.00
	LocoLink£29.95
	Mini Office Pro£29.95

MANY OTHER TITLES AVAILABLE - PLEASE SEND SAE FOR FREE CATALOGUE

BASIC PROGRAMMERS THREE TITLES NOW AVAILABLE BY RENOWNED PROGRAMMER, GEOFFREY CHILDS.

PCW: BASIC TUTORIAL
An Interactive Disk based course of 6 lessons, Ideal for the novice includes Mini Extended Basic..... PCW: PEEK & POKE

exercises£12.95

PCW: STREAMLINED BASIC
MUCH VALUABLE INFORMATION NOT TO BE FOUND
ELSEWHERE - Improve your programming techniques
complete with disk full of sample programs

FREE SOFTWARE FROM THE PUBLIC DOMAIN - OVER 150 DISKS £4.95 each

Utilities, Programming Languages, Databases, Editors, Graphics, Games, Tutorials, Basic Programs. We have the LARGEST selection of CLIP ART for DTP users, all formats: MicroDesign 2, Stop Press, Desk Top Publisher, NewsDesk Int. and Printmaster - All £4.95 per disk.

G/101 PRINTMASTER
Your own PrintShop for PCW8256/8512 or PCW9512 with Dot Matrix, Print
Letterheads, Signs, Banners, Calendars includes 120+ Graphics and 8 fancy fonts.

G/114 PRINTMASTER GRAPHICS: 2000 Pics for use with G/101 on four disks. G/116 MICRODESIGN & STOP PRESS GRAPHICS:

Over 2,000 Files stored on 16 disks alphabet Do you need a graphics for your DTP?

SEND A LARGE SAE FOR FREE CATALOGUE OR TELEPHONE 0384 66269 FOR SAME DAY POST

QUANTITY	5	10	20	50
Panasonic 3"			£37.75.	£94.00
Maxell 3" Uncased	£9.45	£18.25	£34,50.	£85.00
Maxell 3" Cased	£12.45	£21.50	£42.25.	£104.00
Amsoft 3" Uncased.	£9.95	£19.75	£39.00.	£95.00
Amsoft 3" Cased	£12.95	£23.95	£47.00.	£115.00
Rigid 3" Plastic Cases	£3.50	£6.45	£11.45.	£25.00
Disk Labels 3"				
31/2" Disks	£4.95	£7.95	£14.95.	£35.00
51/4" Disks	£2.50	£4.95	£9.50.	£22.00

DISK BOXES - HOLD 3" OR 31/2" DISKS 30 CF2 Capacity......£7.95 60 CF2 Capacity....£11.95 Both sizes complete with dividers, keys etc. Small 5 Capacity Box £2.95 - Holds CF2 only

HIGH QUALITY RIBBONS FROM £2.99 PCW 8256/8512 £2.99 £4.25 Coloured Fabric. £4.95 £4.95 RED, BLUE, GREEN, BROWN, ORANGE, PURPLE & YELLOW Other popular makes of ribbon available. Re-ink fabric re-inking formula £12.95 per can.

CONTINUOUS PAPER & LABELS

PAPER - FANFOLD - MICROPERFED, 70GSM			1		
A4	QTY	3	11"x91/2"	QTY	3
WhiteBond	200	5.95	WhiteBond	500	7.95
WhiteBond	500	8.95	WhiteBond	1,000	13.95
WhiteBond	1,000	14.95	60 gsm White	2,000	19.95
WhiteBond	2,000	£20.95	Series Continue		

LABELS - FANF	1.000	2.000	8.000
2 3/4 x 1 7/16	€6.45	£11.95	£37.00
3 1/2 x 15/16	£5.45	£10.50	£35.00
3 1/2 x 1 7/16	£6.45	£11.95	£39.00
4 x 1 7/16	£7.45	£14.50	£49.00

OCKMARKE

THE MORE COMPREHENSIVE INVESTMENT PROGRAM!

STOCKMARKET 2 will help you plan your investments, keep a close and careful watch on their progress and manage the paperwork. It is a development of the original Stockmarket program which has sold many thousands of copies worldwide. We have added over fifty new features. We have listened to our users and have incorporated a number of their suggestions to make the program even more comprehensive and easier to use.

STOCKMARKET 2 enables you to record full details of all your share transactions (and unit trusts, gilts and other securities). You can enter dividends as you receive them as well as cash transactions in saving accounts. Enter items in any order, the program will sort them out. It is easy to input the latest share prices, instantly revalue your portfolio, produce a summary statement and chart your shares' progress. You can also record values of indices, exchange rates, etc for plotting. It will list over fifty different summary and detailed reports of your portfolio. You can see the percentage gain. List a year's dividends for the tax man. List all transactions or just purchases or sales for every share or just one share.

The program can be used for your real investments and for learning and practising investment techniques. It is easy to use and comes complete with a comprehensive manual and demonstration files which include real price information going back several years for a number of shares (inc FT 30 index, FT-SE 100, British Telecom, Marks & Spencer) so that you can plot graphs straight away. More share prices are available separately on disc.

PORTFOLIO MANAGEMENT

- Up to fifty shares per folio. As many folios as you like
 Record full details of your portfolios of stocks, shares, unit trusts etc.
 Practise buying and selling and accurately record your progress
 Buy and sell shares with automatic calculation of dealing costs

- Ten sets of dealing costs which you can alter as necessary Record dividend yields and P/E ratios. Record tax credits, dividends Update prices and automatically recalculate share and folio values

- Store prices and automatically feed relate share and folio values Sort alphabetically, by date or manually into any order Keep records of your cash as you buy and sell List your folio summary, transactions, dividends and cash accounts
- Easy to use, menu driven program

PRICE ANALYSIS

- Up to fifty shares per file. As many files as you like. 260 prices / share

 Enter prices daily/weekly/randomly. If weekly will store 5 years' prices

 Copy prices automatically from a folio or enter separately

 Chart anything (share prices, unit trusts, indices, exchange rates, etc.)

 Sort into any order for easy data entry. List all the prices for each share

 Plot prices and moving averages of any period on a log or linear scale

 Automatic scaling of graphs so they always fill whole screen

 Easy to read scales/grid for prices and dates (not just week numbers)

 Comes with real weekly prices for several shares for the last few years

 Use curves as a guide to the best buying and selling opportunities

 Sets of share prices may be purchased separately on disc

- On screen help line and pop-up context sensitive help messages

Comprehensive sixty page manual. Complete with demonstration account and prices.

Amstrad PCW 8256, 8512, 9512

£49-95



Also for IBM PC (inc. every Amstrad PC)

Prices are all inclusive worldwide. Send cheque or phone any day (including weekends) from 8am to 9pm and quote credit card number for immediate delivery by first class post.

38 Balcaskie Road, London, SE9 1HQ. Tel: 081-850 7057





The Print Run

Mastering document creation is one thing, but how can you see the fruits of your labours on the printed page? This month, Martin Le Poidevin tackles printing

document on disc is like a tune on the brain. Terribly frustrating. You know it's in there, and you know that it's good, but how do you convince the rest of the world? A great deal of expertise is needed to get the secret tune into a state in which others can share it. Luckily, printing out the document takes a great deal less training.

Nevertheless, getting a computer to communicate properly with its printer can cost a lot in terms of nerves and coffee. Even in LocoScript you can sometimes find yourself tearing your hair out; in the unprotected world of CP/M matters often get much worse. Luckily, Protext offers a simple printing environment, and a wide range of options besides, to make producing final copy even easier.

If you followed the procedure in the manual when you made a start of day disc, your Protext system should automatically set itself up with the correct printer "driver" when you boot up (for this tutorial, we shall stick to printing with the native PCW printers).

To check this, go in to command mode (by pressing the [STOP] key). At the right hand side of this screen should be the word 'Printer', followed by 'PCW' for the 8000 series or 'PCW9512' for the 9512.

If – for whatever reason – this isn't correct, you can install the correct driver by using the 'PR' command. This has to be issued while you are in command mode, and the PR should be followed directly by the filename of the driver – the filetype is not necessary. For our purposes, the two final forms we will need will be 'PR PCW' (which caters for the PCW8000 series) or 'PR PCW9512' for the 9000 machine.

Waiting for paper

We shall now do some printing. First you will need to either load or type in (and save) a document, which for the moment should be no more than a page long. While in command mode, make sure that there is some paper (A4) in the printer. The printer information bar should appear at the bottom of the screen, when you load the paper. Acknowledge this by pressing [EXIT] in the normal way.

Now type 'P', and press [RETURN]. You will probably be asked by the computer whether you want background printing; choose the 'No' ('N') option for the moment. The document should now be printed out. That is the basic procedure, but like so many things in Protext it is not the end of the story. There are many niceties which will make your printing easier and more flexible.

For instance, if you want more than one copy of a document, add the correct number after the P – so that 'P 5' will print out five copies of the document. Almost every print command in Protext understands a 'following number' which directs the number of copies to be made.

It will probably be the case that the document which you most often find yourself printing out is the one you are currently working on. However, you will also want to print out ones that are already complete from time to time, and stored safely on disc.

Another addition to the command will do this. This time, the extra information is the name of the file on disc. The name can include a drive specification. For instance, if the document you want to print is MUSHY.PEA which is on a disc currently in the B: drive, and you are logged onto drive A:, the command 'P B:MUSHY.PEA' will print the file, bypassing any screen display.

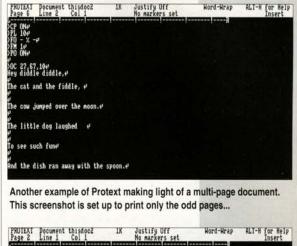
You can also specify the number copies. 'P CORNETTO.ICE 2' will print out two identical copies of the document in question.

Pick and choose

On some occasions, though, it would be more convenient not to have to print out the whole of a document. Perhaps you only want one page, or a part of the document that straddles a page break. If so, Protext will again be able to help.

The command PRINTP (PP for short) will give you the option of either printing or not printing each page. Having issued the command, you will be asked about each page individually. Pressing the space bar will tell the computer to print the page in question; pressing any other key will indicate that it should move on to the next page without printing.

If, however, you want to pick out a piece of text which does not coincide with page breaks, the PP command will obviously not be the ideal answer. The PRINTB (print block, PB for short) command, on the other hand, will do very nicely. This requires that you put markers around the section you want to print (using the [SHIFT] [+] key combination – the computer will sort out





...and this one the even pages. The command OC 27,67,10 tells the printer that each sheet of paper is only ten lines long

which bracket opens and closes the marked section when both are in place), go into command mode and type 'PB'.

So far, everything that we have discussed has been valid for both daisywheel and dot matrix printers. But there are one or two things that a dot matrix can do that are not available for the daisywheel. One is the ability to print out in Near Letter Quality (NLQ).

There are several ways of achieving this effect, such as adding the printer control code [ALT][X][Q], or setting the printer bar to High Quality rather than Draft. The simplest means, though, is to tell Protext that you want high quality printout when you issue the print command. The command for this is 'PRINTQ' (which can be shortened to PQ, as PRINT can be shortened to 'P').

This is particularly useful if you want to check a document in draft quality before printing it out in NLQ – for the first printing just use 'P', for the second, once you have made any necessary changes, use 'PQ'.

The 'Q' part of the command can also be combined with other options; for example, if you type in PPQ, Protext will print chosen pages in NLQ, as

Equal portion

There is another means of printing out a portion of text. Again you will have to mark out the text you want using markers (use [SHIFT][+] to define the parameters). Protext has a second text screen, accessible by pressing [ALT][Y]. If you now press [ALT][O], this will transfer the marked text from the original document. Now you can either edit this, or print it out directly.

In the beginning...

If you haven't set up a special Protext start of day disc, the procedure is quite simple. You will need three discs - your CP/M SYSTEM/UTILITIE S disc, the Protext master, and a newly formatted disc to copy the program on to. Insert your master disc. If your machine is an 8000 series, type PROTEXT <MAKEPCW and hit [RETURN]. If you own a 9512, type PROTEXT <MAKE9512 and hit [RETURN]. Just follow the instructions on screen. The necessary printer driver, and other systemdependent files will be copied on to your new disc.

above), and typing in PQB will ensure that the marked block in NLQ.

Papering the cracks

Whatever printer you are using, there is one decision to be made when the time comes for printing out – whether to use continuous paper or single sheets. Your Protext master disc is probably set up to expect continuous paper. If you want to tell Protext to employ single sheet printing instead, you must turn the continuous mode off, rather than turn single sheet mode on.

This is an order which must be issued from editing rather than command mode, and it will need to be put at the top of the document in question, along with details of headers, footers and so on.

A text command, of course, requires the '>' at the left hand side of the page, followed by the command. The command to turn continuous printing on is >CP ON, and to turn it off, >CP OFF.

Remember, Protext comes with continuous printing automatically set (although it is possible to change this by fiddling with the CONFIG utility), so to establish single sheet printing you will have to turn continuous printing off!

One situation in which continuous printing will come into its own is when it is combined with yet another set of page printing commands to provide 'front and back' printing.

Last month's document, you will remember, was going to be bound as a book – pages 1 and 2 were to be on reverse sides of the same leaf, and pages 3 and 4 were going to fill the second leaf. In this case, it is not too much of a task to use single sheet printing, turning over each page individually so that page 2 can go on the back of page 1, and page 4 on the back of page 3.

But if the document were any larger, the simple chore would become a major test of patience. It would be far easier to check that continuous printing is installed, and then ask Protext to print out only the odd pages. Then all you need do is turn the paper over, and ask it to print only the even pages.

Learner driver

A printer driver is a file containing the information your computer needs to "talk to" the printer which it is linked up with. Besides the drivers for your PCW printers, your original Protext disc also contains drivers for some other popular printers. These are the EPSON.PTR file (for standard Epson compatible printers), the JUK6100.PTR (for a Juki 6100 daisy wheel printer, and many other daisy wheel printers), and finally a 'simple printer driver', which is what Protext will revert to if no other driver has been installed. If none of these work with your individual printer, there is also a 'SETPRINT' utility which will enable you to create your own driver.

The commands for these are PO and PE respectively. Both have to be put into the text as embedded codes with the '>' prompt. As both >PE and >PO are 'toggle' commands – which means, like the continuous printing command, that they turn their particular function on or off – you will have to tell Protext which state you want them to be in whenever you mention them.

So, when you start printing your document, you will need to turn >PO on in order that only the odd pages are printed on the first run. Put the command >PO ON at the top of the first page, along with >CP ON if necessary, and go into command mode to give your printing command either (P or PQ, with the number of copies required, if you want more than one). Half your document will be printed.

Once finished, reassemble your stationery so that it can go through the printer for the second time. This time, of course, you only want the even pages to be printed, so you will have to change the command >PO ON to >PE ON (not to PO OFF – both PO OFF and PE OFF return you to normal, every page printing). Now go into command mode and type P [RETURN], and your document will be all ready to be bound as a book.

A quick study of our example document this month (see below) will show how the effect is achieved.

Lurking in the background

But what about that mysterious 'background printing' prompt? At the moment we are ignoring it, but since it is there, we might as well find out exactly what it does.

Background printing means that the machine can accept orders while it is printing, rather than having its whole attention directed towards the printing operation. These orders can be about the printing itself – for instance, you can either abandon or temporarily suspend the printing from within Protext itself, and so avoid crossing swords with the CP/M printing environment – or you could edit some other text at the same time as the printing is taking place.

Using the 'printing-while-editing' option is quite simple. The document you are printing must be on disc. Go into command mode, type P or PRINT followed by a space and the name of your document, choose background printing, and the printer will begin to type out your text. Meanwhile, you can continue editing the document which is on your screen.

Hold the front page

Probably the most important thing to know about printing – after how to get it started – is how to stop it. It could be that you have the paper set up wrongly, or that you realise you are printing out the wrong document!

The main problem here is that once the printer has begun printing it definitely wants to finish. Inside the machine is what is known as a 'print buffer' in which the next chunk of text to be printed is stored. When it is thinking that far ahead, the machine does not want to be interrupted.

However, if you do wish to call a halt to the printer's fun, the following sequence will stop the process. First press [PTR] to enter printer mode, which will give you the printer status bar at the bottom of the screen. If all you want to do is to pause in the printing, pressing the [EXIT] key will now resume the operation.

But to stop the printer altogether, the next thing to do is to move the cursor over the word "reset" at the right end of the printer display at the bottom of the screen. Once you have it highlighted, press the [+] button (the printer will give what sounds like a little hiccup), followed by [EXIT] (to leave the printer mode), [STOP],[STOP] for a second time, and AB[RETURN] at the a> prompt which will have appeared.

This sequence will both stop the printing and clear the buffer. This means that if you now want to print a different document, it will not start the printing process by delivering you with a chunk of the old one.

These simple guidelines will help you print out your documents simply and efficiently in Protext.

Hey diddle diddle,
- 1
The cow jumped over the moon.
- 3
To see such fun
- 5 -

The cat and the fiddle,

- 2
The little dog laughed

- 4
And the dish ran away with the spoon.

- 6 -

The final print out of the text created in the screenshots. The pages on the right, of course, are printed on the back of those on the left. Notice also how the OC 27,67 command makes 3 pages out of an A4 sheet

Schoo





Count up to nine to help teddy get the honey



Pair the large letters at the alphabet fair





Tell the time and watch the clock come alive!



Guide the frog from log to log to solve the sums





Correct spelling, grammar and punctuation mistakes



Follow the directions to find the buried treasure

- Atari ST Amiga PC Amstrad PCW £24.99
 - Spectrum C64 Amstrad CPC £12.99 (tape) £16.99 (disc)

DATABASE EDUCATIONAL SOFTWARE

Learning is now even more fun!

Fun School 3 is everything you – and your children – ever wanted from educational software: SIX challenging programs in each pack which fulfil the exacting requirements of the National Curriculum. Plus: Stunning graphics; exciting sounds; carefully structured levels so your children can have fun and learn at their own pace. And all are designed by the winning team which created Fun School 2, the biggest-selling educational package ever!

On sale at top dealers nationwide. Selected formats available at larger branches of WH Smith and Boots.



	Und	er 5s 5 to 7		o 7s	7s Over 7s	
Format	Tape	Disc	Tape	Disc	Tape	Disc
Atari ST		9490		9491		9492
Amiga		9921		9922		9923
PC 5.25*		5891		5892	-	5893
PC 3.5*		5894		5895		5896
Amstrad PCW		5211		5212		5213
Spectrum	9084	9085	9086	9087	9088	9089
Commodore 64	9076	9077	9078	9079	9080	9081
Amstrad CPC	6189	6190	6191	6192	6193	6194

Please supply Fun School 3 for the code number(s) circled

☐ Cheque payable to Database Software☐ Please debit my Access/Visa card no.

Expiry date: 1

Send to: Database Direct, FREEPOST, Ellesmere Port, South Wirral L65 3EB. Order hotline: 051-357 2961

Postcode .

Address



THE WEST OF BRITAIN

YOU MUST ADD V.A.T. TO OUR PRICES

PCW STARTER PACKS - ALL TOGETHER NOW!

10 x CF2 3" disks / one of which will be our free gift pack disk - see above /3" - 3.5 locking disk box + 2000 sheets listing paper (11" x9.5") 3 printer ribbons /drive cleaner & IST COVERS ALL FOR THE BUNDLED PRICE OF£59.00

State machine type when ordering & state fabric or carbon ribbons

Changing to an IBM COMPATIBLE???

Contact us re prices and specification on the following (and more!): AMSTRAD - Entire range. OSICOM - 286/386 (the machines we use) SANYO - not the cheapest but excellent TANDON - innovative range - excellent. OLIVETTI, SAMSUNG, CAMBRIDGE, etc etc

*** LINK YOUR PCW TO A PC! ***

Like to run your accounts on a PC but use your PCW as a workstation? Send for details of Compact Accounts PC2PCI

OUR GUARANTEE

is a bit special. If any computer or printer bought from us (without on-site maintenance being offered) goes wrong under warranty we will collect repair and return at our cost.

All you have to do is telephone!

Memory Upgrade - for PCW8256...£17.30 256k upgrade takes your memory up to that of the 8512. Recommended for use with Locospell and Microdesign II. Very easy to fit - full instructions included.

3.5" DISC DRIVE FOR THE AMSTRAD PCW.. For use either on the PCW8256 or 9512 but not 8512 (external only)........£69.00 File conversion software for PC.....£26.00

PACE - 5.25" 2nd drive with its own built in interface & power supply - TDOS software allows data transfer from PCW/PC/PCW Very easy to fit. Also works as fully functional 2nd CP/M or LOCOSCRIPT £115.50 drive.

** AMSTRAD PCW 9512 SHOULDER BAG **

Now you can have your own portable (well sort of) and take your trusty PCW9512 everywhere. JUST... ...£19.00

S.C.A. THE CREAM OF THE CROP!

THE RamPac that supercharges your PCW! Just plugs onto expansion port to provide extra area of RAM. Through connector allows continued use of other peripherals - Locomotive tested!

1.5Mb RamPac	£199.00
768k RamPac	£119.00
512K Hamrac	

RS232 SERIAL/PARALLEL INT	ERFACES
With Real Time Clock	£50.00
Without Real Time Clock	£41.70

PCW HARD DISKS FOR THE EASY LIFE!

Diamond 20Mb PCW Hard Disk... £379.00 Diamond 32Mb PCW Hard Disk Diamond 48Mb PCW Hard Disk €539.00 THE ABOVE RANGE CAN BE SHARED BY MULTIPLE PCW'S - DETAILS AVAILABLE. NEW . NEM . NEM . NEM . NEM . NEM The NEW HardPak - no bigger than an RS232 interface - fits in same way. HardPak 20Mb hard disk... £494 00 HardPak 40Mb hard disk£594.00 No cables-no messing-just brilliant! AND THAT'S NOT ALL THAT'S NEW! NEW SPRINTER: Makes your PCW nearly 2.5 times as fast! Not compatible with other Ram packs unfortunately. SPRINTER: SPRINTER: with 256k of Ram £106.00 SPRINTER: with 512k of Ram. £135.00 SPRINTER: with 768k of Ram ... £164.00 SPRINTER: with 1Mb of Ram. £193.00 SCA'S NEW VORTEX HARD DISK RANGE 20Mb Hard disk unit . P.O.A 30Mb with Locoscript/File. P.O.A .P.O.A. 40Mb with Locoscript/File... P.O.A 60Mb with Locoscript/File.....

MIRACLE TECHNOLOGY MODEMS

Optional extra - 512k ram..

WS4000PCW, complete with Integral PCW interface & connecting lead!.... ...£147.80 DACE MODEMS

Linnett-Intelligent, V21/V23£130.40
Cable to PCW Interface£13.90
Sage Chit Chat Combo £69.50

BBD Dust Cover Sets - simply the best
PCW8256/8512 - 3 piece grey£10.40
PCW9512 3 piece ivory£12.13
Pace 5.25" disk drive cover£5.00

SUNDRIES

Printer stand - any width - rugged.	£14./5
Printer cleaning kit-PCW8000's	£14.60
Mouse Mat	£4.35
'Margin Maker' (MM31) new out!	£12.50
Spike Protector plug - helps	protect
computer or other equipment	against
power surges (we use them)	£10.25
3" Disc head cleaner	£5.00
A4 copy holder with desk clamp	£19.30
Metal keyboard bridge stand	£19.00

DISKS AT SPECIAL PRICES!

3" Amsoft	PCW/CPC x 5£10.50
Amsoft	x10£17.20
Amsoft	x20£34.10
Amsoft	
Amsoft	x40£67.00
Amsoft	x50£82.50
3" Maxell	PCW/CPC x 5£10.00
Maxell	x10£16.00
Maxell	x20£31.80
Maxell	x30£47.70
Maxell	x40£63.60
Maxell	x50£78.00
	Amsoft Amsoft Amsoft Amsoft 3" Maxell Maxell Maxell Maxell Maxell Maxell

Maxell individually cased disks are available please 'phone for prices

x25£10.45
x10£9.80
x10£8.50
x10£12.80

RIBBON RE-INK / DO IT YOURSELF !!!

NEW OUT - 'RIBBON RE-INK' contains no propellant. A black re-inking spray suitable for most fabric ribbon types. Now more £11.00 RIBBON REFRESH - last few left£8.80

DISK STORAGE BOXES

00.32

MADIO (VIII) OI (I) II	0105 10	
DS40L 3"/3.5" - lockat	ole	£8.50
AMS30L (Ams. br'd)	holds 30 locks	£9.90
PRINTER	RIBBONS	
PCW 8256/8512 - do	ot matrix print	ter:
FABRIC (14m length)	x 2	£6.50
	10	COO OF

CARBON MULTISTRIKE x 2 £6.50 £29.25 ×10 PCW 9512 - daisywheel printer:

CARBON MULTISTRIKE × 2 £6.00 x10 £27.00 FABRIC TYPE £6.00 ×10 £97.00

AMSTRAD BRANDED PRINTER RIBBONS PCW8000 Fabric or Carbon x 2£13.00 PCW9512 Fabric or Carbon x 2.....£13. PCW8256/8512 COLOUR RIBBONS £13 00

FCHOZ	JOIOJ I Z COLOU	IN KIDDOINS	
hone for a	vailability	x 2£11.80	0
MALL SELE	CTION OF OTHER	PRINT RIBBON	S
ITIZEN	Swift 24	x 2£9.00	0
	Swift 24 Colour	x 2£29.00	0
	120D	x 2£7.00	0
	HQP40	x 2£15.60	0
	HQP40 Colour	x 2£39.0	0
	HQP45	x 2£20.8	0
MSTRAD	DMP 2000/3000	x 2£7.9	0
		x 2£13.5	
	LQ5000	x 2£17.5	0
TAR	LC10	x 2£6.3	0
	LC24-10		

We supply exactly what you order - please make sure that what you are ordering is going to be right for you! We do not sell goods on approval

x 2£11.50

£11.80

x 9

COMPUTER PAPER 11" x 9 5" Continuous Listing:

LQ400

LQ500

EPSON

SP/05 1 sheet thick - 500 sheets£9.80	
SP/10 1 sheet thick - 1000 sheets£11.30	
SP/20 1 sheet thick - 2000 sheets£15.60	
DP/05 2 sheets carbonless - 500£15.60	
DP/10 2 sheets carbonless - 1000£24.30	
11" x 14" Continuous (wide carriage):-	
1 shoot thick EOO shoots CO OO	

1	sheet thick - 500 sheets	£9.00
1	sheet thick - 1000 sheets	£15.75
1	sheet thick - 2000 sheets	£22.50
	4 - (True A4) 80 gsm - Continuous:-	
		£13.90
		£19.95

rialli	Willerillero peri x 1000	
Plain	white/micro perf x 2000£33.50	
A4 -	Single sheets - white x 500£8.25	
A4 -	Single sheets - white x 1000£13.75	
A4 -	Single sheets - blue x 1000£17.75	
ADI	CIC with enrocket holes	

One wide 3 1/2"x1 7/16" 500 £.0 05 One wide 3 1/2"x1 7/16" - 1000 £13.75 £22.50 One wide 3 1/2°x1 7/16° - 4000 £49 50

Lancardat II II and Outle	040.05
Locoscript II User Guide	£19.95
Supercalc Training Manual	£12.95
Locomail User Guide	
Locospell User Guide	£14.95
Locofile User Guide	£19.95
Mallard Basic Manual For PCW	£9.95
Protext, a PCW Users Guide	£10.95
Successful Credit Control	£17.95
Computers and the Law	£22.50
Directors Personal Liability	£19.50

NEW OUT - A PCW 102 KEY KEYBOARD!!!

Simply unplug your existing keyboard, plug ne in and start typing! £69.00 Excellent quality and feel

AMSTRAD PCW SOFTWARE

THE COMPOSERS PEN II - the new	version.
Well worth waiting for	£62.00
FLIPPER II PLUS (not for 8256)	£26.00

WORDPROCESSING (also see Books below)

PROTEXT - THE FULL SYSTEM: £32.90 includes a very fast wordprocessor plus spell-checker and a superb mail-merge utility that is almost a programming language in itself. The latest version.

PRO-EAZE - needs Protext to run....£15.00 a set of utilities produced especially for Protext users containing a variety of automatically generated invoice layouts/ delivery notes etc. All can be customised and carry out calculations automatically. Ideal for the small to medium sized

It is always important to state the type of PCW you own when you order!

LocoScript II	£21.70
LocoCombo-LocoScript II & Spell.	£27.00
LocoMail & File-for which PCW?	£33.70
LocoFile - state which PCW used	£22.65
New Thesaurus-use with LocoFile	£12.80
LocoMail - use with Locoscript II	.£21.00
LocoSpell - use with Locoscript II.	
LocoFont Disc (contains old LocoF	
LocoFont 2)	
LocoScript II & LocoFile	£31.50
always state the type of PCW yo	LLUSE

OTHER LOCOMOTIVE ITEMS AVAILABLE Digita 'E' Type-typewriter emul......£24.15 M.A.S.S. Easy Labeller - excellent....£21.00 More than a simple labeller - ideal for anything from greetings labels to anything from greetings label consecutively numbered raffle tickets

INTEGRATED PACKS & SPREADSHEETS Mini Office Pro-Integrated pack..... Cracker II Turbo - Spreadsheet...... .£25.87 .£32.00 £34.00 Supercalc II - Spreadsheet

DATABASES .£28.00 £49.00 £47.45

Digita Datastore II...... £93.40 £45.00 Camsoft Cambase SEE LOCOFILE IN WORDPROCESSING

NOT ONLY BUT ALSO!

Contact us for dictating machines telephones, typewriters, shredders photocopiers, computer furniture, video recorders, fax machines, pens in bulk, in fact office equipment and office supplies of all types!.....eg...

ı		
ı		also see next page
ı	Fellows	Powershred 910£2955.00
		Personal Shredder 30£99.00
ı	rellows	Personal Shredder 50£129.00

...........

BOOKS ARE ZERO RATED SO DO NOT ADD VAT: LARGER BOOK LIST AVAILABLE

5	Sharpbenders - Unleash Potential£25.00	
5	Moving Into Management£8.95	
5	Strategic Management/Small Bus£17.50	
5	Working with dBase II£10.95	
5	Supercalc Prompt: Supercalc 3£10.95	
5	Locoscript II/Mail/Spell/File£10.95	
5	Introducing C£12.95	
0	Data protection code of practice£12.95	
0	Using the Amstrad PCW Word Pro£9.95	

IF ONLY ORDERING ONE BOOK PLEASE ADD £2.00 (PLUS VAT) TO COVER CARRIAGE...

To place an order by telephone we will need to know the following:

- 1. Today's date.
- 2. Your name and address.
 3. Your telephone number in case of problems.
- The name of the magazine where you saw this advert.
- The type and number of the credit card you wish us to debit. 6. The expiry date of the card.
- and lastly: 7. The item(s) you wish to purchase making sure we know exactly which type of machine it is to work with.

Please note - we have moved our Sales and Despatch departments to new premises All enquiries should now be directed to this address.



ACCOUNTS PACKAGES FOR THE PCW

If you are unsure which package you need for your business please do not hesitate to elephone us and we will li sten to your needs and describe the various packages to you in clear jargonless terms - but leave you to decide.

A UNIQUE OFFER FROM CORNIX SOFTWARE - ONLY AVAILABLE FROM 'W.B.B.S.' LTD!

Cornix have a reputation to live up to a reputation they are justly proud of. We at West of Britain are equally proud to have been chosen to act as the sole distributor for their bundled pack (to be known as CORNIX CONTRACTOR). This is one special offer you just cannot afford to miss if you are running a business. CORNIX CONTACTOR consists of their top two titles sold together in one pack at a VERY REDUCED PRICE. The rrp for the two individual packs is

The essential PCW accounts package for the small business' 8000 Plus Jan '91' - you are able to predict accurately just how much outlay you expect for a job taking materials and labour into account, and what you should be expecting in return.' 'It could be your passport to multi-national status! 8000 Plus Jan 91.

CORNIX	TITLES -	EACH I	N A CLASS	OF ITS	S OWN.
--------	----------	---------------	-----------	--------	--------

Simple Accounts II£46.00	Job Estimating£48.50
	Product Costing£48.50
** SPECIAL LIMITED OFFER ** Buy contactor	and get a copy of CARD INDEX (database) for
just \$15.00 plus VAT. What ARE you waiting to	r211

CONNECT SYSTEMS - .

MONET MANAGER TOW
Money Manager PCW
Great value!£37.90
This is the very latest version from the
Connect stables - a top seller.

D.R.S. Total Accounting	£56.00
please contact us for details	
Meridian Stockmarket II	£29.00

COMPACT ACCOUNTS

We use Compact for our own accounts system. The best is on the PCW! .call for prices COMPACT ACCOUNTS.... Sales/Purchase/Nominal Ledgers plus Invoicing/Report Writer & InterfacerP.O.A. COMPACT ACCOUNT PLUS... As above plus Stock Control & Sales Order

COMPACT COMPLETE ACCOUNTS .. P.O.A. This new bundle provides everything you need to run a business including Payroll. **FULL DETAILS AVAILABLE**

FULL BANGE OF STATIONERY AVAILABLE

CAVALIER SOFTWARE

Simple Invoicing	£30.39
Instock	£65.00
Intact	£65.00
Inbusiness (integrated)	£130.00
Diner: Restaurent/Take Away a/c	£52.13
Homeview: Estate Agents prog	£169.95
Newsboy: Newspaper Deliveries	£52.13
Re-Chord: Music Library prog	£26.04

HiSoft Software

with selector copier and build-fi option. Essential utility for PCW

Integrate

Business Controller.

DIGITA SYSTEM 3

MICRO SIMPLEX A/Cs & VAT MADE SIMPLE Particularly suited to shop-keepers as will cope with Retailers VAT schemes A, B, C D, E, F, G, H&J & Pharmacy Scheme B. Also suited to any small business used to keeping its books weekly.....£99.00

	MICRO	SIMPLEX	PUB STOCK	£99.00
--	-------	---------	-----------	--------

SAGE ACCOUNTS

Popular Accounts	£54.00
Popular Accounts Plus	£85.00
Popular Invoicing	£40.00
Popular Payroll	£40.00
Topological Control	

CAMSOFT ACCOUNTS

PSIL - Integrated Stock/Inv/Sales/	
Purchase & Nominal ledgers	.£149.00
PSPN - Int. Sales/Purch./Nom	£89.00
PPAY - Payroll	£45.00
	COST OFFICE

	MAP ACCOUNTS	
d	Accounts	

£89.80

£44.00

Other Map ledgers mostly at£39.00
DIGITA

£90.00

STOCK CONTROL	
INVOICING/SALES LEDGE	R
CASHFLOW CONTROLLE	R
Not a full accounts pack bu	it rather a suite o
3 separate 'tools'	

ARNOR CP/M LANGUAGES

MAXAM II	£39.00
Complete CP/M machin	ne code
development syste	em.
'C'	£27.21
Complete C developmen	
BCPL	£19.90
Flexible, fast, general p	
programming langu	age.

PLEASE NOTE: THIS ADVERT CONSTITUTES JUST A TINY PART OF OUR RANGE OF PRODUCTS (see 'Not only but also'). WE NOW HAVE A FULL COLOUR CATALOGUE - 1000's OF LINES OF OFFICE EQUIPMENT & SUPPLIES (useful in the home too!) 576 PAGES FOR JUST £5.00 (INC VAT)

UNIQUE TO W.B.B.S. LTD!!!

Professional tarot reading program.

DESKTOP PUBLISHING --- DESIGN --- GRAPHICS

MICRO DESIGN II - A revolution in desktop publishing on the Amstrad PCWI

RUNS ON the PCW8256/8512/9512 (the 9512 needs a dot matrix printer to print). 'The manual is comprehensive, immensely friendly, and will lead you where you want to go' (New Computer Express) - and its 150 pages long. IMPORT FILES from Locoscript 2, Protext, Wordstar, Masterscan, Stop Press and other PCW software.

TEXT EDITING: TYPESETTING: FONT DESIGN: GRAPHICS: DIAGRAMS: LOGOS ** 'The Rolls Royce of PCW desktop publishing.' (Amstrad PCW Magazine).

NEW FROM THE PRODUCERS OF MICRODESIGN II - PROSCAN - A HAND SCANNER FOR THE PCWI

ProScan - from CREATIVE TECHNOLOGY. A brilliant new triumph from the makers of Micro Design II. Excellent quality, Easy to use, Cheap. 8000 Plus Magazines verdict - scoring 20 out of a possible 20!!! First CREATIVE TECHNOLOGY brought you the software & now the hardware to turn the PCW into a serious dtp machine.
THIS NEW SCANNER IS SO GOOD THAT YOU MUST SEND FOR DETAILS!...

THO HEN DOMINIETTIO DO GOO.		
MicroDesign II + Kempston mouse &	& Interface (i	ncludes Jeeves & Daatafax)£79.00
MicroDesign II + Logitech/AMX type	Mouse & In	terface (with through port)£75.00
Stop Press + Mouse & Interface	£60.70	Logitech/AMX type Mouse + Intfce£41.30
Stop Press - Software only	£28.50	Kempston Mouse + Interface£52.00
Desktop Publisher & Mouse	£51.99	Down Brown - Live - anddead
Master Scan	£48.50	PCW DRAW - at last a professional
Master Pack (scan and paint)	£54.60	drafting program for the PCW£33.00
Master Coop not for professional us	•	

WE SUPPLY EXACTLY WHAT YOU ORDER PLEASE MAKE SURE THAT WHAT YOU ARE ORDERING IS WHAT YOU WANT!!! SORRY BUT WE DO NOT SELL ON APPROVAL

EDUCATIONAL AND FUN!

BOURNE EDUCATIONAL SOFTW	ARE
	£11.99
World Wise	£11.99
two really excellent packs!	

-	0	n	$\overline{}$	_	~	п	v	A

Giantkiller (maths adv. 9-16 yrs)£12.85 Yes Chancellor (UK Economy sim)£12.85
765 Charleston (Ore Economy Sim) in 12:00

10113731	
Crash Course in Typing	£15.60
	100000000000000000000000000000000000000
Two Fingers to Touch Typing	£15.60

KOSMOS LANGUAGE TUTORS

French, German, Spanish & Italian very flexible courses - each just£13.75

APEX BUSINESS LANGUAGE TUTORS

French/German/Spanish each at£29.00

D.G.C. EDUCATIONAL SOFTWARE

Junior Playtime 4-8 years	£12.90
Crossgrid (crossword puzzles)	£12.90
Schools Out (5 games)	£12.90
Ultimate Quiz	£12.90
Sums	£12.90

FCF - IL AOO MISH IO 2100	A PEKIONOFI
LCL Micro Maths 8yrs to adult.	£19.90
LCL Micro English 8 to adult	£19.90

SCHOOL SOFTWARE

Better Spelling - age 8 to adult.	£12.90
Magic Maths - age 4-8 years	£12.90
Maths Mania - age 8-12 years	£12.90
Better Maths - age 12-16 years .	£12.90
Physics, Chemistry or Biology	
age 12-16 years : EACH AT	£16.00

REELTIME

Top quality training courses on disc with instructor on audio tape

RT-LocoScript II - PCW9512	£29.90
RT-LocoScript - PCW8256/512	£29.90
RT-LocoScript II - PCW8256/512	£29.90
RT-CP/M - use your computer!	£29.90
RT-SuperCalc II	£29.90
RT-dBASE II	£29.90
DESIGNED ESPECIALLY FOR NE	W USERS

PCW LEISURE

*** GET RICH QUICK PERHAPS? *** PRO-PUNTER (racing bet aid).....£39.00

PRO-POOLS (forecasting aid)£34.60 Although designed as forecasting aids we cannot guarantee results with the above or with the Intraset range!!

*** ADVENTURE GAMES ***

Corruption\$	£16.00
Scapeghost!	£12.50
Lancelot - 3 adventures in 1	£13.20
Fish	£16.20
* The Professional Adventure	Writer *
* Write your own adventures! *.	
Mindfighter	£15.00
Time and Magik - 3 games in 1	£9.90

*** TOPOLIGIKA ADVENTURES ***

Acheton£19	.80
Avon/Murdac£15	.20
Countdown to Doom£15	2.80
Kingdom of Hamil£19	2.80
Philosophers Quest£19	2.80
Return to Doom£19	2.80

*** SIMULATIONS ***

Tank Attack - NEW PROGRAM	.£14.80
World of Soccer	£12.00
Tomahawk - helicopter simulation	£12.80
Graham Gooches Test Cricket\$	£12.80
Headcoach - American football	£12.00

*** ACTION ***

Brian Cloughs Foo	tball Fortunes	£9.90
Classic Collection	1\$	£12.20
Classic Collection	II	£12.20

*** TABLE GAMES ***

0.50
08.9
2.10
1.80
3.00
3.50
5.20
0.80
2.80
512
5.00
The same of the sa

INTRASET SOFTWARE RANGE FOR

17.35
17.35
15.61
9.80
43.43
26.04

CALLERS WELCOME BUT STRICTLY BY APPOINTMENT PLEASE.

you see anything we sell being sold cheaper elsewhere phone us before you buy - Open 9am to 5pm. MONDAY TO FRIDAY.

Postage is FREE on orders over £10.00 net. If less than this please
add £2.00 to cover postage. YOU MUST ADD VAT No export orders.

Prices and descriptions subject to change without notice (trading conditions available upon request). All trademarks ack. If you see anything



WEST OF BRITAIN BUSINESS SERVICES LTD. DEPT 8/4
ENTERPRISE HOUSE, BEECHWOOD INDUSTRIAL ESTATE,
LLANDEILO, DYFED, SA19 7HR. TEL: (0558) 823782

OR PLACE YOUR CREDIT CARD ORDER BY FAX (0558) 823923 9am-10pm Mon-Fri.
GOVT. DEPTS / LOCAL & EDUCATIONAL AUTHORITY CREDIT ORDERS ADD 3% TO CASH PRICE



WIN A PC 1640 COMPETITION



INTRASET LTD

Tel: 025 72 76800 (Main office & 24 hr order line) Helpdesk 0490 3284 (weekdays 3-4pm) Fax your order on 025 72 74753











All prices include P&P and VAT. Overseas orders please add £5.00

CASHMASTER

HOME AND BUSINESS ACCOUNTS

Master your own finances. CASHMASTER is the easiest to use, most versatile accounts program yet written.

CASHMASTER is suitable for both small business accounts or home finance use.

We wrote CASHMASTER for our own use out of sheer frustration with the other so called easy to use packages. CASHMASTER allows you to input entries in one easy operation and yet allows you to extract the absolute maximum of information in an impressive gray of statements and reports: increase. and yet allows you to extract the absolute maximum of information in an impressive array of statements and reports: just look at its range of features:

Easy natural data entry - just like a handwritten ledger.

Full VAT analysis or omit VAT altogether if you wish.

Any amount of ledgers at one time.

No set time periods, span any time period - no one year limit.

Reports can be produced over any time span (1 day to 100 years)

Up to 100 user definable Class and 20 Accounts Codes.

Detailed statements by selected Classes or Accounts.

Profit & Loss Statement.

Tagging of entries for report selectivity.

Entries can be inclusive or exclusive or zero VAT.

Automatic repeat of entries (standing orders etc.) yearly, half yearly, quarterly, monthly, lortnightly or weekly.

Insert entries anywhere in ledger, CASHMASTER automatically sorts into date order.

Search and find option on any entry anywhere within ledger.

Reports can be output to screen, printer or disk file.

Reference field for every entry (Invoice no. cheque no. etc.).

Split and merge ledgers at any time.

Class and Accounts codes visible at all times. mation in an impressive array of statements and reports: just

- Class and Accounts codes visible at all times. FREE pop up running total calculator called up with one
- key press.

 CASHMASTER IS THE MOST USER FRIENDLY, POWER-FUL AND VERSATILE ACCOUNTS PACKAGE YET YOU WON'T BE DISAPPOINTED.

 And now available with...

CASHMASTER INVOICING & STOCK CONTROL

- Full customer data file easy to find account records Full stock data file, price lists, re-order lists. Full invoicing with user defined messages. Full invoice editing, invoice to & deliver to fields. Pre-paid, account or credit note, full VAT facility. Settlement, no return & line discounts.

Stand alone invoicing/stock control or integrates fully with CASHMASTER for a FULLY FEATURED ACCOUNTS/INVOICING PACKAGE costing less than a quarter the price of its rivals.

CASHMASTER £39.95 CASHMASTER INVOICING £39.95 BOTH PROGRAMMES TOGETHER £69.95

££££ PROFIT FROM YOUR MICRO ££££

- RECESSION? WHAT RECESSION?

 Make your Micro earn!

 Whatever make of micro you have you can use it to make a good income even if you only have a couple of hours
- a good income even if you only have a couple of hours spare each week!

 This is not PIE IN THE SKY, MAKE A MILLION BEFORE BREAKFAST nonsense but a true report of exactly the sort of steps that we ourselves took at INTRASET.

 We have put together a package of easy, sensible business ideas which can easily be used by anyone with any Micro.

 NO COMPUTER EXPERTISE REQUIRED.

 Earn £££'s from home doing what you apply doing using
- Earn £££'s from home doing what you enjoy doing using
- Earn EXE's from nome doing what you enjoy doing using your computer!
 You probably already have everything you need to start earning. Hundreds of potential customers in your area who will GLADLY pay for your services. We tell you how to find them! Part time or start your own full time business. Ideal for housewives/husbands, unemployed etc. Very little capital outline on projects.
- outlay on projects.
 Full step by step sixty page book PROFIT FROM YOUR MICRO comes complete for just...

£14.95 inclusive

SPECIAL DISK DEAL

	£	3	£
DISK	10	50	100
3" CF2 (AMSOFT) 3 1/2 DSDD 5 1/4 DSDD	19.00 6.90 3.90	92.50 32.00 19.00	180.00 60.00 37.00

GENUINE HIGH QUALITY DISKS

POOLSMASTER The Football Pools Predictor

- A LICENCE TO PRINT MONEY" Mr F C Hammond of Essex
 "WE HAVE WON MANY THOUSANDS" Mr P E Roberts of Dorset Just a couple of the many unsolicited testimonials about this truly amazing Football Pools Predictor Programme which has consistently astounded us with its accuracy.
- Check out its features: Predicts homes, aways and draws.
- No fiddly typing in of team names: unique indexing system for quick entry of fixtures and results just type in the results each week from your usual newspaper and the pro-gramme updates itself.
- Uses scientific formula which is the result of many years study of the football pools to give a strike rate which is consistently higher than the laws of average. Also has a SEQUENCE PREDICTOR option in addition to
- form Predictions which analyses coupon number sequences. This option has astunded us in the past and continues to do so
- Can be used for league and cup matches. Updates seasor after season. No need to buy a new copy every season.
 Send for POOLSMASTER today and increase your chances of that JACKPOT. Comes complete with manual and informative Pools Guide.

DISKS AND TAPES £19.95

★ ★ SPECIAL OFFER ★★

SPECIAL COMPENDIUM DISKS/TAPES POOLSMASTER/PERM-MASTER/COURSEMASTER & SPOT-THE-BALL. ANY 2 PROGRAMMES £37.95. ANY THREE PROGRAMMES £49.95. ALL FOUR PROGRAMMES £59.95. BUY ANY THREE DISKS (OR TWO INCL. COMPENDIUM) AND RECEIVE PROFIT FROM YOUR MICRO FREE

THE GRAPHOLOGIST

HANDWRITING ANALYSIS PROGRAMME

- HANDWRITING ANALYSIS PROGRAMME
 "UNCANNILY ACCURATE" 8000 PLUS MAGAZINE
 Analyse YOUR handwriting, or your partners, friends etc.
 What are they REALLY like! Your handwriting always reveals
 your true nature, state of health etc.
 This programme is a must for anyone interested in handwriting analysis, both expert and beginner alike.
 The programme will provide an analysis of a subject's
 handwriting ranging from a simple signature analysis to a full
 15 page complete character report. Ideal for prospective
 employers, experienced graphologists or anyone interested in
 this fascinating art.
 All you need is a sample of the subjects handwriting and
 follow the simple on screen instructions. Upon completion
- All you need is a sample of the subjects handwriting and follow the simple on screen instructions. Upon completion you are left with an in depth report detailing all aspects of your subjects character from career ambition, state of health through to sexual preferences and megalomanial
 You may even edit this report using your word processor for representation to your subject/client.
 THE GRAPHOLOGIST is a must for serious business use or simply have loads of fun entertaining your friends whilst learning the finer aspects of this faccination subject.
- learning the finer aspects of this fascinating subject.
 COMPLETE WITH MANUAL OF GRAPHOLOGY

Price £49.95 inc. VAT and P&P

All programmes available for IBM/PC & compatibles, all Amstrad PC's, Amstrad PCW's, Atari, Amiga, CPC 6128 (unless otherwise stated). Perm-Master also available for Commodorer 128 disk. Coursemaster and Poolsmaster also available for all Amstrad CPC's, all Spectrums and C64 & 128

COMPETITION RULES

Every purchase made qualifies you to enter our competition draw. The total value of your purchases will determine the prize won.

There will be one 1st prize only per draw.

Spend up to £20.00 - 1st prize = a Star LC printer.

Spend up to £40.00 - 1st prize = Amstrad PC1512 SDMM

Spend over £40.00 - 1st prize = Amstrad PC1640 SD colour.

5 runners up will each win full set of Intraset software as above. Intraset's decision final on all matters.

Send SAE for list of winn Draw dates 28.02.91 and 28.09.91

COURSEMASTER THE COMPUTER HORSERACING TIPSTER PROGRAMME BEAT THE BOOKIE FOR A CHANGE!!

- RATES ANY RACE using racecard in any dally paper or racing paper BOTH FLAT AND JUMPS. Racing paper
- not required, ordinary daily paper is all you need. Gives clear forecast of best selection PLUS second and third for Tricasts etc. and even recommends type of bet. Will advise best bet, good longshot or Each Way and ever when not to bet.
- No more struggling with a calculator to work out your winnings. COURSEMASTER works out your WINNINGS on most popular types of bet ie. SINGLES, DOUBLES, PATENT, YANKEE, CANADIAN, HEINZ etc.

 MAINTAINS A BANK ACCOUNT - Bet like a PROFES-
- SIONAL! Compare COURSEMASTER'S performance with your favourite Newspaper tipster.
- Complete BETTING ADVICE from first principles. Even if you have never seen the inside of a betting shop the easy to understand betting guide takes you from the first princi ples of betting, types of bet, staking plans to helpful advice
- on building a betting bank
 PLUS the amazing COURSEMASTER SYSTEM BET. This superb easy to use betting system regularly provides our customers with MAJOR WINS for small stakes - try it and amaze yourself. Based on sound mathematical principles this betting system is based on Permutations and seeks to maximise your returns on minimum stakes. To MAJOR WINS A YEAR IS ALL YOU NEED TO BE IN
- Will even PRINT OUT YOUR BETTING SLIP for you if
- you have a printer! COMPLETE WITH 20 PAGE BETTING GUIDE AND MANUAL

DISCS AND TAPES £19.95

PERM-MASTER

If you enjoy doing the Pools and regularly use perms as we at INTRASET LTD. recommend then checking your coupon can be a nightmare. Have you won or haven't you? Perm-Master ends the agony by checking your perm for you. Simply tell it which of your coupon numbers are draws and it will do the rest, telling you how many winning lines you have. Perm-Master comes complete with several of the top perms already built in, but if your favourite perm is not there then simply create your own using the unique perm editor.

• Fast and simple to use
• Unique PERM ENTOR

- Fast and simple to use
 Unique PERM EDITOR
 Create your own perm using the inbuilt perm calculator, test your own theories etc.
 For most block and single line perms

Price £19.95

SPOT-THE-BALL

For all SPOT-THE-BALL fans this programme is a must, no more tiresome counting of 'x's or messy rubber stamps. Use your computer to do your SPOT-THE-BALL coupon. Just tell your computer where you think the ball is using the screen template supplied.

Will print out up to 540 micro-fine crosses in your chosen shape, or simply tell it to choose at random. Learns as it goes - tell it where the ball is every

build up a database of results to use in SPOT-THE-BALL's sequence predictor option.

Works with any Epson compatible dot matrix printer or build your own printer driver using the on screen option.

• LET SPOT-THE-BALL fill in YOUR COUPON this week

SPOT-THE-BALL £17.95

INTEREST FREE CREDIT TERMS

Spend over £80 and spread the cost at no extra charge! (Cheque purchases over £80 only). Simply divide your order by 4 and send us four cheques each with your name and address and cheque guarantee card number on the back. Date the first cheque with today's date and post-date each of the other cheques by one month i.e. 1.5.91, 1.6.91 etc We will then hold each cheque until it is due.

HOW TO ORDER: CHEQUES, P.O.'S TO: INTRASET LTD (DEPT. 8K) FREEPOST 10 WOODSIDE AVENUE, CLAYTON-LE-WOODS, CHORLEY, LANCS, PR6 7BR OR PHONE/FAX AS ABOVE FOR LIGHTNING FAST SERVICE. WE ACCEPT ALL MAJOR CREDIT/CHARGE CARDS. SEND SAE FOR FREE SOFTWARE CATALOGUE

Loco Surgery



This month's LocoPlus begins with Liz Bruce's regular round up of readers' LocoScript queries – and includes a new section for absolute beginners!

I apologise for bringing this old topic up again, but is it possible to have embedded instructions on the SCREEN DISPLAY of a Template? Like many others, I use existing stationery, which in several cases, are forms with various items to be typed in. With the template set out as usual, it is necessary to delete all the various item headings before printing on the form. Otherwise the headings are printed as well. If the headings were not printed, but embedded as, for instance, the word processing codes such as [+]UL are, my problem would be solved.

The best we have come up with is to put a * before the headings then use Find and Exchange with * and wildcards to exchange the headings for a space. I look forward to seeing if there is an easier/quicker method.

The 'Find and Exchange' method certainly works, but it is clumsy and difficult to learn. The short answer to your question is no. However, there is a solution. If you buy LocoMail, you can use this to set up a Master which is laid out like your forms, but with the headings put in as [+Mail] prompts. You would then be prompted to enter the information at each heading but the prompts themselves would not be printed. I've produced a short example for you to see, and I think if you have a lot of this sort of thing to do, then a LocoMail package would be cheap at the price!



The best way to see embedded instructions in a template is to set up a document in LocoMail



When you come to 'Fill' the document, this is what you will see on screen...



...and as you type in the text, the prompts will disappear

I wonder whether you could solve a LocoScript problem. It is simply this – when you want to print a particular page out of a large number of pages in a document LocoScript obliges without wasting any time.

But there appears to be no way of getting this page on screen,

if you want to edit it, without having the machine going through the whole previous screed.

Is there some magic formula I am missing out on which could help me get to the page I want to edit immediately, or am I doomed to this inexorable delay?

It is not clear what version of LocoScript you are using. If you are still using LocoScript 1, the answer is yes, you are indeed doomed. If you are using LocoScript 2 however, a press of [f5] for 'Page' will solve your problems. The

first option from the ensuing menu is 'Find Page' and you simply type in the number of the page you want and LocoScript will find it for you, without scrolling the intervening text on the screen. Much quicker and a great relief.

One thing I would mention, it is not a good idea to let documents get too big in LocoScript. They become clumsy and difficult to get around in. I usually make the upper limit about 10 pages and split bigger documents into chunks.

For a long time I have been trying to work out how to print letters, using the 9512, so I was delighted to see the article in your February issue, 'Try It For Size.'

All went well until the penultimate paragraph which started 'Remember, this is only half the story...'

Can we have the other half please?

In fact, we'd looked at the 'other half' previously, when we explained about templates. However, I've had so many letters on this subject that it is obviously causing people a great deal of heartache, so here is an explanation of the whole thing, from start to finish.

group 7/IEMPLAIE.SID Document setup.	Printer idle. Using B M: Page line/57
ayout 0 Pil2 LS1 CR+0 LP6 1=Actions f2=Layout f3=Style f4=Size_	165=Page 16=Printing 17=Spell 18=Options EXIT
	Paper type
end of header 1 : used for all pages	Page layout Header/footer options
-end of footer 1 : used for all pages	Page break control
-end of header 2 : used for no pages	Page numbers
	EXII
-end of footer 2 : used for no pages	

B: group 7/IEMPLAIE.SID Document setup. Layout 0 P:12 LS1 CR+0 LPS f1=Actions f2=Layout f3=Style f4=Size		Page line -/57
	A4 A5 11continuous 1." Labels	
-end of footer 2 : used for no page	QUARIO A1 Fan Fold ENUELOPES tickets Headed Paper	

Select the required paper type and press [+]. Make sure 'Use paper type' is selected



Tip ahoy!

Our new LocoPlus

good deal of your

section is attracting a

LocoScript queries. Fnatastic! Keep them flooding in, to Liz Bruce, 8000 Plus, 30 Monmouth Street. Bath BA1 2BW. Liz will deal with your query just as soon as she can. However, we're not only interested in your queries; we'd like to hear from you if you have any valuable tips or advice on the program which you could pass on to others. To distinguish tips from enquiries, address your envelope to LocoTips, at the usual address. And, far be it from us to suggest that you need any encouragement to share your knowledge, but the best tips will earn a cash prize!

The paper you are using is 7" wide by 10" high and the first thing we need to do is to set up a 'New Paper Type' for these dimensions.

You will need your start of day disc (the one you use when you first switch the computer on) and make sure it is not write-protected.

With your start of day disc loaded, select [f6] for 'Settings' then select the second option down, Paper Types. Put the cursor on a type of paper similar to the one you wish to create. The size doesn't matter, but it does make life easier if you choose a type which matches continuous or single sheet, as explained above. In this case, A4 will do fine as our new paper type is going to be single sheet. [EXIT] to the original menu and select 'New Paper Type'.

The first thing you need to do is to give it a name. Let's call this 'Headed Paper'. Do not press [ENTER] after

typing in the name or the machine will save that name with the old values still in it. Just move the cursor down to height and type in the new value. As the printers work at 6 lines to the inch, we work out this figure by measuring the height of the paper in inches and multiplying by 6: 10° x 6 = 60. The width is worked out the same way: 7° x 6 = 42. That will define the size of the new paper.

By the way, the longest side is the height. If you wish to use a piece of paper so it is wider than it is high, turn it round at this stage and set the longer side to height. Later, when you are selecting this paper for use, you would select the 'Landscape' option and LocoScript will automatically adjust the printer to use the long side as the width.

The top and bottom gap should be left alone as if you make them smaller, the printer may not print straight on the extra lines.We don't need to worry about the paper sensor as it was correct for A4 when we started, so it is correct for any single sheet. (For an explanation of the paper sensor, see LocoScript surgery in February 1991's 8000 Plus.)

Then select 'Create new Paper Type' and press [ENTER]. The screen will display a message explaining that this 'New Paper Type' has to be written to the start of day disc. If it is not, the computer will not know about the new type the next time it is switched on, as only the information on the start of day disc is always available to the program. As you put your master disc in before we started, you only need to press [ENTER]. If you now press [PTR], then [f3] for 'Paper', you will see your new paper type is now on the list of types the printer knows about. If you tick your new type and then select 'Show Paper Type', you will see the values you set.

How do you set up a template for using that type of paper?

Sounds complicated, but it's really quite simple. Load the data disc you want to work on using this type of paper and choose the group you want to store these documents in, then press C. When asked for a name, type TEMPLATE.STD. Notice that this has to be exactly correct. You cannot call this TEMPLATE.HED or LETTERS.TMP or anything other than TEMPLATE.STD. When you create a document, the computer hunts for a TEMPLATE.STD to use as a pattern to set up that document and it will not recognise any other file than TEMPLATE.STD for that purpose.

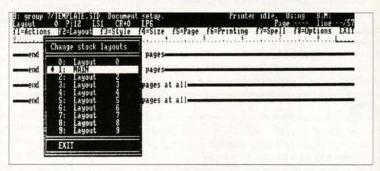
You can see that just looking at a TEMPLATE.STD on the screen tells you nothing about what that template will do, so you must name the group to describe the shape of the documents created by that template. At the disc manger screen, either before or after you have finished creating your template, press [f4] then ENTER and type in the name, e.g. HEADLET.

When the editing screen appears, the first thing to do is select [f1] Actions, then Document setup. To set up this document for your new type of paper, you want [f5] for Page, and then 'Select Paper type'. Your new type will be displayed and you need to put a tick beside it. (Use the [+] settings key, at the bottom left of the keyboard.) This will set the length of page in your document as you will see by the lines available shown at the top right hand side of the screen when you return to editing text but it does nothing to the width. This is because it is up to you to decide how big your margins should be, so now you have to set them. If you know how to change margins, this is no different from any other occasion.

You could just go back to the editing screen and use f2=Layout to change the margins. The problem if you



[f2] from Document Setup gives us the choice 'Change Stock Layouts'. Press [ENTER]



Layout 1 is the one we want; 0 is for headers and footers, and the others are extras

1=Margins	Pillo LS2 f3=fabs	f4=Size f5=Stock	Decimal=, Zero=0 ScaleFitch f7=hame f8=Options CAVE
end of	header 1 : used	for all pages	√ Justify Italic
	footer 1 : used	Newscare and the control of the cont	v Decinal marker is . Decinal marker is ,
		for no pages at all	√ Zero character is 0 Zero character is 0
			Scale pitch 10 10 12 15 17 PS

Press [f8] from the editing screen to change the scale pitch

	Page layout
end of header 1 : used for all page	Top gap 6
end of footer 1 : used for all page	Header zone 10
—end of header 2 : used for no pages —end of footer 2 : used for no pages	Page body 41
end of rooter 2 : used for no pages	Footer zone 0
	✓ Fixed footer zone Floating footer zone
	Bottom gap 3
	Paper length 60

Setting a header zone of 10 ensures that your address will never be printed over

do this, is that if at any time you cut out or delete text from the beginning of your document, you will also delete the Layout code and the margins will revert to what they were before. It is better to alter them in the stock layouts. To do this, press [f2] for 'Layout' from the Document setup screen (you get there through pressing [f1] for Actions, and selecting 'Document setup').

Choose 'Change stock layouts' and you will be given a list of 10. The first one on the list is reserved for headers and footers only. People often try to use this one, and then find that their changes disappear when they go back to their editing screen.

The second layout down, Layout 1 is the default menu for editing text and this is the one you want to change. Select it and press [ENTER].

You can now choose the position of the margins, tabs and so on by moving the cursor along the top line and selecting the relevant menu. One area of confusion here is between pitch and scale pitch. Pitch is the number of characters per inch. I tend to use pitch 10, ten characters to the inch, so as the paper is 7" wide, I have 70 available characters per line. If you use pitch 12 (and this is the default pitch for the 8000 series machines) you would have 12 characters per inch, and 12x7 gives you 84 available characters per line. So, if the left hand margin is set to 1 in pitch

ten, this is 10 tenths of an inch =1". If it is set to 10 in 12 pitch, however, it is only 10 twelfths of an inch and the margin will be smaller.

The margins and tabs in the layout are set in the scale pitch, which is shown at the top right of the screen when you are in Layout mode. You can change the Scale pitch by pressing [f8] for 'Options'. It makes sense to set the scale pitch to the pitch you mainly intend to use in your documents, as that way the text will reach evenly from margin to margin on the screen.

When the scale pitch is different from the pitch you are using in the document, the screen will look odd, as is cannot show you different sizes of character and so does its best by showing you what will be printed on each line: this may appear to go beyond the right hand margin if the pitch you are using is using more characters to the inch, and stop short of the margin if it is using less.

It's nothing to worry about, it will print out correctly but it is confusing if you don't know why it is happening.

To set the right hand margin one inch from the side of the page, in pitch ten, we would put the cursor on 6, (70 available characters – 10 available characters at 10 characters per inch) press [f1] for 'Margins' and select 'right hand margin'.

We can also put in any tabs we may

want. Using this template will now print out perfectly on our new paper.

However, we can be a little more subtle yet. This paper is headed note paper, with a printed address at the top. We can measure where that address sits and in this case it reaches two and a half inches down the page. If we go back to the Document setup and back to f5=Page, then select Page layout, we can set this into the header zone, so making sure the address will never be printed over.

You can see we already have 6 lines in the top gap, so that is one inch at the top of the page which will not be printed on anyway. We need to go down another inch and a half, and a fraction more to allow for the paper not being quite straight in the printer.

One and a half inches at six lines to the inch is 9 lines, plus one for luck is ten. We type 10 into Header zone and press [ENTER]. We could also put space into the footer if we wished but this paper does not need it. See the settings we have made in the screenshot on the previous page.

All you need to do now is [EXIT] from the template and remember to name the group it's in if you haven't already, then go ahead and create documents. Anything now created in that group will be set up identically to the template allowing us to print perfectly on our new paper.

LOCO PLUS

We have a PCW8256 at school and I would like to make a few sheets of tutorial notes for the children to refer to when they are using it. I very much admire the way your

column is illustrated by pictures of what the screen is showing; is there any way I can do that? Or does it need a special camera or a link from the computer in some way?

It couldn't be simpler. All you have to do is make sure there's paper in the printer, then press [EXTRA] and

[PTR] and the printer will print out exactly what is on the screen. This is commonly known as a screen dump (or sometimes, though not strictly accurately, as a screen shot) They certainly make information a lot clearer.

A Beginner's Guide to the LocoScript Disc Manager - Part 1

Some of you may be using LocoScript for the first time, and may find that not all of the queries dealt with in our regular 'surgery' are relevant. So, this month we start with the basics – the disc manager screen. This is what you will see when you first load your LocoScript start of day disc into the PCW.

The first thing to note is the 'status' line – the top three lines of the screen.

These will always tell you where you are, where you can go and what you can do from that point in the program. This may seem obvious, if you already know that, but many people pay little attention to what the top of the screen is telling them and don't realise just how helpful these lines can be.

Let's look at the top line, from left to right. In the middle, the words 'disc management' tell you that you are in the part of the program where you can gain a general overview of things – and these things are as follows.

Along to the right you are given the 'status' of the printer. As you have just 'booted' the PCW, then the printer will be indicated as being 'idle'. The last of the top line messages is the indication of which of the three possible drives



LocoScript's opening screen is known as the Disc Management screen. This month, we discover the roles of the three lines at the top

are currently in use. Ours says "Using none', and will continue to do so until we tell it otherwise. If you then go on to edit a document, a drive indicator will appear. This will read A, B or M, the last of which is the PCW's own built-in drive.

The middle line shows you what can be done from this disc management status. From left to right, we have the following. 'C=Create new document' allows you to make a new file, 'E=edit document' allows you to work on a file that already exists.'P=print document' lets you print a file straight from the disc management screen,

rather than going in to the actual document and choosing 'save and print' as you [EXIT] from the file. 'D=direct printing' allows you to use the computer as a typewriter. You need to be inside a document to make use of this feature, so either press 'E' to 'edit an existing document, or 'C' to create an existing one. Make sure that you have a piece of paper in the printer, then type your text on the screen. Now, every time you press return, the text is printed on the paper and the screen clears.

If you have LocoMail installed on your start of day disc, there will be two additional messages in the status lines. One is 'F=fill' which allows you to fill a previously prepared LocoMail document, and the other is 'M=merge', which you would select to merge a previously prepared LocoMail master with a previously prepared data document. Finally, the third line tells you what each function key will do. The function keys (numbered [f1] to [f8]) are located on the right hand side of the PCW8000 series keyboard, and on the left hand edge of the 9512 keyboard. Next month, we will be looking at those function keys in more detail.



* Address Sense

In the second of our special LocoFile tutorials, Karen Donaghay helps you to plan and set up a comprehensive customer record for a small business

nless you live in a hermit's cave, surrounded by an impassable mountain range, the chances are that you - like everyone else - will have an address book. And your personal contacts may be just the beginning. Business folk will need to keep tabs on where their customers can be found, clubs have to know who their members are; in fact, almost every organisation has its own variation on the theme.

Most address books seem to get fuller with each passing year, and in most cases, increasingly less legible. Soon you could find that your trusty list of addresses is obscured by a multitude of red lines and double entries. This is one of the clearest cases where the use of a database such as LocoFile can completely streamline business - or domestic - administration.

And what's more, setting up an address book in LocoFile is extremely

straightforward. This month, we've looked at that very task, and have defined the process in six easy steps - from start to finish.

And if you are still wondering what is wrong with your old address book, then think on this. You can wave goodbye to all those untidy corrections and dog-eared pages. Instead, you can welcome, in their place, features such as an automatic searching facility, the possibility of adding other information - birthdays, anniversaries and so on - and the means to sort your addresses into towns or any other category.

But more of that later. First, let's look at the basics. For our example, we chose to set up a company address book. It lists customers, and their addresses and leaves a space for comments and extra information - we've chosen the credit limit of each individual. You can of course, adapt these categories to fit your own needs.

Tip of the month

- Don't worry about the diminutive size of your LocoFile card. It can be expanded. The maximum is 80 characters wide and 99 lines deep. After the 27th line however, it runs off the page, so make sure all important information is on the first screen.
- A slip of the finger can spell disaster for a datafile. If you just want to display an address, rather than make alterations, then protect yourself from erroneous changes by locking up your file. Press [f1], select Lock the File, and press [ENTER].
- Save postal towns as separate fields. That way, if you're planning a business trip to a given area, you can quickly check your database for all the customers you could visit in one particular town.

Step 1: Initial planning

It's very easy to scoff at those careful souls who plan everything out on paper before setting a finger on their keyboards. But, nine times out of ten, this forward thinking pays off - giving clear results very quickly. For instance, our customer addresses were originally kept on an index card, as shown in the illustration. As you can see, something as simple as untidy handwriting can make information very difficult to find at first glance. It is also distinctly unprofessional.

To convert this into LocoFile form you need to decide how how many fields you need, how big these will be and where they are best positioned. Mr Carliaone 2

Poughteepsie 3

No credit / init 4

Well-connected but volable

5

- 1 Title (4 characters)
- 2 Name (20 characters)
- 3 Address (40 chars x 5 lines)
- 4 Credit Limit (10 characters)
- 5 Comments
- (40 characters x 2 lines)

We decided on five fields for our example: Title, Name, Address, Credit Limit and Comments. Deciding the size of each field needs a touch of foresight. The largest Credit Limit is unlikely to be more than a six figure number, so a space of seven or eight characters leaves ample room. On the other hand, the Comments which you add to each record could be either non-existent or very long-winded, so this field needs as much space as possible. The exact dimensions of each field are shown, in terms of characters, underneath the diagram.

Don't worry if you do make mistakes: they can be corrected. Planning is simply one way of getting it right first time.

Step 2: Starting out

The next stage is to create the "master card"
- a standard template that allows you to fill in
the address details for your different
customers, without having to go to the
trouble of setting up the layout for the card
each time you wish to use it.

With LocoFile loaded, begin by pressing [f1] and scroll down to the 'Create LocoFile' option. Then press [ENTER] and choose a name for the file. We called ours Customer.DAT. If you give all of your LocoFiles the suffix .DAT, it makes them easy to identify. Press [ENTER] and the blank



easy to identify. Press [ENTER] and the blank The mastercard; the tiny box is the location for the 'title' field

card will appear on the screen. Use the arrow keys to move the cursor into the top left hand corner.

Then, move (carefully) fifteen spaces to the right and press [+]. Lo and behold, a small box appears. It should look like the box in the top left of our screenshot. This is where the customer's title is going to go.

To expand the box, move the cursor three spaces to the right. This gives you a box big enough to write Mr, Mrs or Miss inside, which is exactly what we want. We have allowed a maximum of four characters for this field.

Step 3: Layout details

To fix the tiny box in position, press [ENTER]. You can then type in the name of this field, which we have called Title.

Another menu immediately springs up, and this time you need to scroll down to the line that says 'Place at 11 o'clock'. What this does is to determine the location of any text in relation to the field you have just set. The field is denoted by the tiny white box - or blob - which we saw in the previous screenshot, and LocoFile uses a clock face to define positioning. So, we want the text, 'title', to be placed to the left of the field location (see the screenshot in step 5 to check this). This is 9 o'clock, so



LocoFile uses a clock face to define the position of text by a field

change it by typing in 9 followed by [ENTER], and this completes the alterations. The word Title will, as a result, be displayed to the left hand side of the box. The other options can be left as they are. The 'Show the Name' option is highlighted, meaning that the word Title will actually be printed on-screen. You can enter up to four characters in the box since the Item Width is four. Item height is 1 as only one line is used for the title box. Finally, the last two settings refer to the position of the box on the screen, in other words it begins at line one and in column 16. Press [ENTER] to see the effect on the card layout.

Step 4: Completing the layout

he Surname field is added in the same way. Move the cursor beneath the first box - that is, the one we have just created for the 'title' field, and making sure that one line is left free, press [+]. Then press [ENTER] and type in the name of this new field, 'Surname'.

When the full settings menu appears, scroll down to the fourth line and set it to 'Place at 9 o'clock' and press [ENTER]. This time there is one more adjustment to make. You should set the Item Width to 20 and press



Create the remaining four fields in the same way...

[ENTER]. In step 3 we set the this value by taking a shortcut and 'stretching' the box, but for larger fields it is much more precise to actually type these values in. Finally, to see the results, press [ENTER] again.

The other fields can be added in the same way. The Item Widths and Heights are set as follows: Address is set to 40 characters wide and 5 lines high, Credit Limit is 10 characters wide and 1 line high and finally, Comments is 40 characters wide and 2 lines high.

Step 5: Creating the index

The final layout should look like this. But there is one extra feature to set - an index. These are not compulsory, but it would be a great shame not to include at least one. They are one of LocoFile's most useful features. Like a manual card-index, they allow LocoFile to sort the entries into alphabetical or numerical order.

Again this is common sense really. When you look up a telephone number in the telephone directory, you look for the surname. Likewise, with our address file, the obvious choice of index is Surname. This is the piece of information that you



...and the final layout of your master card should look like this. Notice that the comments field has plenty of room for text entry

are most likely to know already, and indexing this field will speed up the search considerably. To set the index, press [f2] for Index, then [ENTER]. The only option displayed is to 'Create New Index', so press [ENTER] again. The various fields will be displayed and you move the highlighted bar over Surname. Select this field by pressing [+] and a tick appears next to it. You'll see an option called 'Alphabetic Standard' which, should already be pre-selected with a tick. Press [ENTER] then [EXIT] followed by [ENTER] This installs your index and takes you back to your card layout.

Step 6: Using the address file

Once you are satisfied that the layout is to your liking, you can start filling in the entries. Simply press [EXIT] and wait for a few seconds while the layout is put safely on disc. You are then dumped unceremoniously into your first record. Filling in the entries shouldn't be too taxing. You just move the cursor to the chosen spot and type. Alternatively, you can speed through the boxes by typing text in, and pressing [RETURN] to get to the next one. Our first record is shown in the screenshot. If you want to add more, and we're sure that you will, the next record can be typed in by pressing [f1] Create New Record. The simplest way of moving around this new data-land, is to press



With all the fields set up, you can save your layout to disc, and then go back and make the relevant text entries for each customer

[PAGE] or [ALT][PAGE].

The indexing system which we set up in the previous step is easily demonstrated by the command 'GoTo'. Press [f5] and type in the surname you want to find. The entire address appears on the screen in a flash. When you have added all the records you need, the whole database is saved by using the [EXIT] key. Another way of saving the layout is to [EXIT] before you add any addresses. If you then make a copy of the layout then re-load it using the Run LocoFile command, this allows you to keep an empty file containing the card layout, but not the information. Very useful when you intend to use the same layout for say, customer details and personal addresses.

A Touch of Class

Tequiche's new keyboard for the PCW promises to be a revolution. So is it a Steinway, or a Stylophone? Rob Ainsley taps in to some pleasant surprises



Board

used on a

meeting

A PCW 9512

keyboard can be

PCW8256 or 8512

and away you go.

though as the 8000

- just plug it in

The opposite

keyboards are

undoubtedly

inferior to the

9512's, it's not

be likely to do.

something you'd

applies too,

Teqniche PCW102 Pan Euro (0925) 234170 ● £90.85

Though the QWERTY arrangement of alphabetic keys has become standard, the layout for the exotically named impedimenta required by computer keyboards - [RELAY] keys, [RETURN]s, [PASTE]s, [EOL]s, and others that look like railway junctions or waffle irons - is

far from standard. Imagine the potential confusion if the same problem afflicted concert pianists: "Sorry, Mr Liszt, but on this one you'll find the E flats between the As and the Bs, and the soft pedal is marked CTRL and is over to your far right hand side..." It simply wouldn't work.

When Amstrad designed the original PCW8256, they were working to rather a tight budget, and the keyboard was one of the corners they had to cut. To be fair, they did an extraordinarily good job in getting a cheap keyboard that is very usable; treat it with care and it will last many years. (After four and a half years, the 8000 Plus fleet is wearing well). One way of keeping the costs down seems to have been by cramming all the keys as close as possible; after all, if there's no

standard keyboard, then you may as well go for the most economical arrangement that you can.

This was a drawback remedied to a great extent on the PCW9512, with its three banks of keys, but the PCW8000 keyboards are a little uncomfortable to use, with more keys than Florida, all doing an impression of passengers on a Tokyo rush hour train. Aim for [RETURN] and you can easily press [f5] instead, often with irritating consequences (particularly if [f5] is a function key command to 'erase all files'); the left cursor can turn into [f3]; [CAN] can turn disastrously into [CUT].

Other users talk somewhat disparagingly of the clankey and rattley nature of the native keyboard, and its robustness has also been challenged. These are less fair criticisms - think of the tremendous bargain your PCW is -but they are still made.

Nevertheless, PCW users have been wondering for ages why some enterprising company hasn't stepped in and provided an alternative. Now Teqniche have - and their product looks to be a winner. Essentially, the new PCW keyboard addresses these three problems:

- 1. Key layout
- 2. Key spacing
- 3. Key action
- and solves them all well.

The first - and most obvious thing - is that the unit is rather bigger than the native keyboard. The basic keys - from [STOP] and [TAB] and so on down the left to [RETURN] on the right - take up the same space, yet seem deceptively larger, probably because of the two colour system used to separate the alphabetic keys from the other keys and the smaller labels. The rest of the keys are sensibly grouped in clearly separated sections, making the whole unit about 20% wider and 20% deeper than that on the 8256/8512. The fact that the layout is different will mean some acclimatisation for long-term PCW users - a day or two maybe - but less trouble for more familiar to users of other computers, especially typical office PC compatibles, whose layout it more broadly resembles.

For example, the delete-left and delete-right keys are not together as on the PCW, but are in different rows (and aren't marked the same - one has the word "Del", the other just an arrow). The numeric keys are over by themselves on the right, with the cursors - which on the PCW keyboard double as numeric keys sometimes - are in a different bank still. Function keys are in a row of eight, marked [F1] to [F8]: no sharing two to a key as on the PCW, so good for anyone who uses function-key intensive applications (LocoScript springs to mind). [EXIT] moves up to the top left, while [CUT], [COPY] and [PASTE] are in a group of their own at the top right. It's much more sensible this way: if you miss the key you're aiming at by one you won't go far wrong, as you can on the PCW keyboard. All those "LocoScript keys" -[EOL], [EXCH], [DOC] and so on are there too, in a separate group again. The settings keys, [+] and [-], are larger than on native keyboards - a very sensible move given their extremely frequent use

Key action is also quite different from the native keyboard: more clicky than springy, as it were. Different users prefer different responses, but the click seems to be the preferred type by most users that we have come into contact with. Teqniche's unit is certainly not silent, but is mezzo-piano to the PCW keyboard's forte.

Tequiche are keen to point out in their adverts that the two "home" keys for touch typists - J and F, the keys that sit under the index fingers at rest - have

Those shift states in full

There are various shift states that a PCW can have. The most obvious is SHIFT LOCK, selected by the key of that name, when (for example) pcw8256 would come out as PCW*"%'. However, there are others, which can be selected unknowingly and cause baffling results. Teqniche's keyboard has a special indicator panel that shows you what key state you are in, which should cause less bafflement; a summary table is given here.

In Numeric lock, many PCW keys change function: [EOL] produces 4, for example, instead of going to the end of a line. The facility is there to help the entry of numerical data. Teqniche's keyboard has a separate numeric keypad which imitates the PCW's, but also has a separate bank of cursor keys and [EOL] keys and so on, so the change of function initiated by Numeric lock doesn't rob you of cursor movement, as it does on the PCW.

SHIFT STATE	ON/OFF BY	EFFECT	PCW KEYBOARD DISPLAY	TEQNICHE KEYBOARD DISPLAY
Shift /Caps Lock	[SHIFT LOCK] on PCW	pcw8256 becomes PCW*"%"	Red light on SHIFT LOCK	Green light on Caps Lock indicator
	[CAPS LOCK] on Tequiche	pcw8256 becomes PCW*"%'		
"Postcode" lock	[ALT] [ENTER]	pcw8256 becomes PCW8256		
Numeric lock	[ALT] [RELAY] on PCW	pcw8256 becomes pcw8256		Green light on Num Lock indicator
	[Num Lock] on Tequiche	but [RELAY] becomes 0		
		cursor left becomes 1 etc.		
Scroll lock	[ALT] [RELAY] on PCW	pcw8256 becomes pcw8256		Green light on Scroll Lock "
	Num Lock] on Tegniche	but keypad numbers produce		
		[RELAY], cursor left/right etc.		

small raised bars on them to guide the fingers. It's a device that is useful for those learning touch typing but which isn't to everyone's liking; after prolonged touch typing they can be an irritating intrusion. However, the choice of a bar at the bottom of the keys (rather than a raised spot in the middle, as on some keyboards) seems reasonably avoidable if you find it so.

An interesting idea is the "shift state" indicator panels on the top right of the keyboard: three lights that glow to show whether you're in Num lock, Caps lock, or Scroll lock (see the box).

The only things that can be said against the keyboard are the distance of [RETURN] from the alphabetic keys there are three keys between it and the L, requiring a giant leap for the little finger - but this is a choice forced on Teqniche if they don't want to stray too far from the native key layout; and fact that the [SHIFT] key on the left hand side isn't as big as that on the PCW, and has the [EXTRA] key next to it; it can take a bit of getting used to, and you'll probably press a few [EXTRA]s by mistake while changing.

Another bonus is the accuracy level for high speed typing. The PCW keyboard is prey to some strange effects at high speed. Type 'PCW' very quickly, and it becomes 'PC?W' even though you didn't touch the ? key. Similarly, 'more' becomes 'morbe', 'list' becomes 'liwst' and so on. These effects do not appear on the Teqniche.

A thoughtful addition to the Teqniche keyboard is the pair of metal legs that can be sprung out from the bottom of the unit to raise the angle of the keyboard on the desk. Touch typists will be familiar with the term RSI: repetitive strain injury, the damage that can be done to typist's hands by overuse in an uncomfortable typing position. Being able to raise the keyboard so easily will not completely prevent RSI-that is best done by frequent breaks from typing, say every 15 minutes, and a perfectly comfortable hand position to start with - but it certainly helps.

The most important question - how long the keyboard will last compared to the PCW - is obviously one that can't be answered here. The unit certainly feels substantial. It is guaranteed to "one million individual keystrokes"; presumably this means until one million letter Es, which will occur at roughly the two million word mark - the equivalent of about 4,000 one-page business letters, or something like 20 novels.

At £79 plus VAT, the cost of a Teqniche keyboard is about the same as a replacement PCW one. If you're happy with the keyboard you have, fine. The Teqniche is not going to revolutionise your life. But it is certainly more thoughtfully designed, more comfortable to use, easier and less frustrating than the one you have already. It's very sensibly priced, and it is, indisputably, streets ahead of the 8256/8512 keyboard - and quite few houses in front of the 9512's.

The Teqniche keyboard - in detail

The Teqniche keyboard has eight individual function keys, as opposed to the native keyboard's four. This saves having to use the [SHIFT] key every time you want to access a function whose number exceeds four. This will be particularly useful in LocoScript; for example, if you are in the document editing screen, you can select f5=Page, f7=Spell and f8=Options with the greatest of ease.

Another useful addition to the new keyboard is the ability to produce fractions such as a half, a quarter and three quarters. The PCW's native keyboard has a half key, but the other two are accessed by pressing [ALT] [2] and [ALT] [6] respectively. The Teqniche saves you having to stretch fingers between the [ALT] key and the elusive top row. This function will be invaluable if you own a millinery business!

Here's a boon for all would be touch typists - a small ridge at the base of the letters f and j. These two keys are the official location for the left and right index fingers if you are using the so-called home keys. Some PCW typing tutor programs use coloured stickers to help you find the home keys; this is a neater solution, and should get you out of the habit of constantly looking down at the board.











The arrangement of these keys has both good and bad points. The arrow is the [SHIFT] key, which is further away from the main keys than its equivalent on the native PCW board, and if you want to reset the machine using [SHIFT][EXTRA][EXIT] (Flipper owners take note) you need to have a very flexible left hand. You can of course use the second [SHIFT] key to the right of the keyboard. The often used [+] key, however, is comfortably enlarged.



This is not visible from the main picture - because it is situated underneath the keyboard. This is one of a pair of metal feet, which are located at the top right and left undersides of the board. There are three 'settings' to experiment with, and the rubber pads ensure that the board doesn't slip around on the desk. If you don't require the position of the board to be raised, then you can click them neatly away.



Numbers are easily accessed with a 'dedicated' numeric keypad. It has the layout of a standard calculator, and has the other mathematical signs conveniently close to hand. Pressing [Num Lock] ([ALT] [RELAY] on the PCW) disables the cursor keys - but you can still use them from a separate keypad just to the left. However, the [RELAY] key cannot then be used as such.

Tegniche PCW 102

Pluses

- ▲ Less cluttered than PCW keyboard
- ▲ Smooth clicky action
- Keys in sensibly grouped separate banks
- ▲ Useful Indicator lights to show shift state
- Smart and very professional look and feel
- ▲ Familiar for users of PCs
- ▲ Separate numeric keypad
- ▲ Eight function keys, not four
- ▲ Good value
- No intrusive letters at high speed (the 'PC?W' effect)

Minuses

- ▼ Different layout needs a little acclimatisation
- ▲ [SHIFT] key on left hand side is small and can be confused with [EXTRA]

Ease of use	5/5
Design	5/5
Performance	4/5
Features	5/5
Value for money	19/20

Loco Promotion

LocoScript PC is still something of a youngster in the world of PC word processors. Steve Patient takes a look at the program in its newly upgraded form

LocoScript PC Locomotive Software (0306) 740606 ● 125 + VAT

The transmigration of LocoScript from the PCW to the PC altered it very little to the satisfaction of some and the irritation of others. Perhaps irritation was in the ascendant since Locomotive have moved relatively quickly to upgrade the PC version and have now released version 1.5. There are several reasons for the upgrade, among which Locomotive's discovery that 15 percent of those buying it are brand new users

occasionally wish to work on two documents at once - a wish addressed and mastered in the world of the PCW by the invention of Flipper.

In the new version of LocoScript PC, two files can be viewed alternately, full screen, or simultaneously, via a split screen - but at a price. While two files are active you cannot merge other files into them. Similarly, while you can edit the same file in both windows Loco PC regards them as separate - changes in one are not then reflected in the other.

Tongue in cheek

Support for foreign languages, including ancient Greek and Cyrillic, has always been a strong point in LocoScript. However, remembering just which key produces what symbol is not easy. Now, though, there is a helpful keycap display. Keycaps put a picture of the QWERTY part of the keyboard on the screen over a document. Function keys select the particular supershift required and, hey presto, the keys show the relevant characters. The idea originates from the world of the Apple Macintosh.

Paper chase

Locomotive Software have always said that their word processor should be as much like paper as possible, so clearly regard the printed word as the proper end result of all that effort at the keyboard. It was therefore unfortunate that laser printers, so important in the PC world, were poorly supported in version 1.0 of Loco PC. Now, thankfully, there is support for a wider range of laser printers along with HP font cartridges and downloadable fonts. LocoScript PC 1.5 will make as many fonts as you like - though the old limit of ten per document still applies.

One gripe PC program reviewers had with the original LocoScript PC was the retention of the Disc Manager screen - a paradigm that worked well on the PCW with its single level of directories, but sat poorly on the hierarchical directory structures of the MS-DOS on the PC. Once again, Locomotive have missed an opportunity to alter it and the changes made are evolutionary rather than revolutionary.

The big improvement is that LocoScript PC will now handle directories as if they were files - you can delete, copy or move a directory (and its sub-directories), at will. Also, you can use file filters (or wildcards) to specify which files are displayed and acted on within a directory. There is also a very useful file search command. It will find a file and leave the disc manager screen positioned over it.

Jumping jack

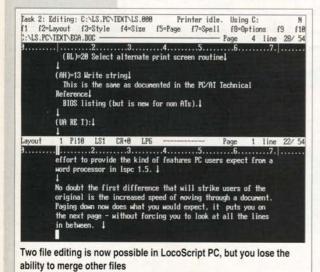
On the PC, many users have become used to having programs pop up over other programs, a feature that version 1.0 of Loco PC didn't get on with at all well. The new 'Enable TSR' mode, for those who must use pop-ups, knocks out a lot of the keystroke interception done by LocoScript PC so that the other program can get at them (and thus know its time to put in an appearance). The price for all this is that it forces you to run in standard 25 line text mode. This has the disadvantages that effects like italics (and special characters) are not shown on screen and less lines are visible. On the other hand the screen update is faster.

As with the original release
LocoScript PC 1.5 runs in a variety of
graphic screen modes. The default is
still 30 line graphics mode on video
adaptors that support graphics (much the
same in appearance to the PCW). For
those with Hercules monochrome cards
a 90 column mode is supported. Others
get the usual 80 column PC standard.
On the plus side you also get text
effects, like bold and italics, displayed
on screen.

There are few changes to the integrated database that comes with LocoScript. The main one is the ability to import CSV (comma delimited files) from other programs - the only way you're ever going to get all of Uncle Harry's wine list, that he currently maintains on a Lotus 1-2-3 spreadsheet, into a form that LocoScript can readily make use of.

To sum up, LocoScript PC 1.5 is better than version 1.0, and very good value for money. There are now even more good reasons for moving from the PCW version to the PC version, and the process should be virtually painless.

Some will argue that LocoScript PC still looks fussy and quaint alongside some of the other rather sleek and sophisticated PC word processors available. But for anyone considering moving from the PCW to the PC, and wanting to take a capable, user friendly companion with them, then LocoScript PC, in its new, improved form, fits the bill perfectly.



LocoScript PC (v1.5)

▲ Two file editing
▲ Keycaps display

▲ Keycaps display ▲ File search command

Minuses
▼ No mouse support

Ease of use 4/5 Improvements 4/5 Value for money 4/5

8000 Plus Value Verdict 12/15 rather than ex-PCW users.

LocoScript PC 1.5 costs £125 or, alternatively, you can upgrade from the original (£15 if you bought version 1.0 after 12th November 1990 or £35 otherwise). It comes with the same set of manuals as the original version: tutorial, reference guide, printer guide, installation guide and the integrated database and mailmerge manuals. A slim pamphlet describes the additions and alterations made in version 1.5. If you buy the upgrade you only need the discs and the upgrade pamphlet.

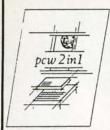
Once the new improved Loco PC is installed, it is instantly noticeable that 'Paging' down does what it always should have done - it puts you on the next page - without forcing you to look at all the lines in between. There are few users who will not welcome the extra speed when moving through documents.

The other major change in the program is to concede that users



Two Programs EVERY PCW should have!





NEW!

pcw-2in1 Version 2 is now the ultimate Disc Manager for the PCW. Automatically handling both PCW discs and those from an IBM-PC or compatible, you can use 2in1's windows and cursors to

move around Discs and Groups quickly and easily, marking any number of files for copying or deletion with a single keystroke, on either type of disc.

pcw-2in1 Version 2 runs on all PCW models, will format or verify both PCW and IBM-PC discs, and even lets the PCW9512 use PCW8256 CF2-type discs!

pcw-2in1 costs £29.95, or comes FREE with a 3.5" second drive for PCW8256/9512 at just £99.95 plus £3 carriage (includes full cabling and instructions)



pcw-ToolKit Version 2 is the leading disc recovery program for the Amstrad PCW. Specially designed, it makes full use of the PCW's screen and keyboard to allow anyone to recover damaged discs and data easily.

Many of the commonest disc faults can be repaired by pcw-ToolKit almost automatically. Would you wait for a fire before getting an extinguisher? Buy a copy of pcw-ToolKit now and find out what it can do before you next get that "Missing Address Mark"!

pcw-ToolKit costs just £24.95 How much are YOUR files worth?

Also available :

£49.95 - Use other CP/M formats, PC and BBC discs on the PCW pcw-MFU

Blank Discs:

£ 9.95 TEN High-Quality, Branded 3.5" discs in library box

TEN Amsoft/Maxell 3" discs

£19.95

Please ask for further details and our full catalogue of PCW Software and Disc Drives. All prices shown include V.A.T. and delivery within the U.K. except where otherwise stated. VISA/ACCESS accepted. Foreign enquiries welcome. E&OE

MOONSTONE computing

Strathclyde Business Centre **Clyde Street** CLYDEBANK G81 1PF Tel. 041 - 941 - 3120



TO ORDER: Post your cheque together with your name and address and choice of colour - grey, white or black to: T.F.S. Comstax Ltd, Freepost, Chalfont St. Giles, Bucks HP8 4BR.

wide×55cm deep) though not illustrated here is priced at £55.95. Phone or write for brochure and prices.

Telesales: 0240 73031 Fax: 0240 771190.

Please allow 28 days for delivery.



The Com-Stax is a copyright design patent applied for.





Let there be Light

This month, Karen Donaghay travelled to the University of Durham - and found a PCW helping some budding theatrical stars to shine

What's the plot?

When questioned on the plot of Godspell, Alan Dennis replied, "Like all good musicals, there is very little plot. The story is loosely based on parables from the gospel according to St. Matthew". Hmm.

hen the students of Durham took to the stage, the audience loved the show – a singing, dancing spectacular known as Godspell. But, how many of them realised, as they applauded at the end of the evening, that the success was partly due to the efforts of the PCW? It played a less obvious, but no less important, role than that of the leading actors. They may have been under the spotlight but without the PCW there would have been no spotlight at all.

Alan Dennis was the brains behind the debut. He watched the performance from a platform at the back of the hall. It gave him the best seat in the house – and a bird's eye view of the show – but Alan was more concerned with the events on his PCW screen.

"From here, I can control every light on the stage," he explained. A swift tap on the keyboard and, sure enough, the setting changed from a sombre green to an audacious red. Another tap, and the revolving mirrorball, so beloved of nightclubs, sent a flurry of lights across the backdrop.

Such expertise made it easy to forget that this was Alan's PCW's first foray into the world of showbiz. There was never a lack of native talent in the machine, but no one had written the software to let it perform in this way. So, Alan decided to produce his own.

"This is the heart of it all," he said of a small black box beneath the PCW. "See that bunch of leads?" pointing down the hallway, "they go into the lighting racks themselves." Or, as they say in the children's anatomy song: the PCW is connected to the black box, the black box is connected to the lighting racks and the lighting racks are connected to the lights.

Nuts and bolts

The role model for the whole system which Alan has created was a professional lighting controller called Sirius. However, the sliding controls of

Sirius are reproduced by an emulation of the same on the PCW screen. Each control is adjusted not by hand but by mouse, which produces more or less the same thing effect. Up with the mouse means up with the brightness and there are twenty four channels, or lights, to choose from. But that is by no means the end of it. The lighting can be worked out for each scene of Godspell, and replayed in order. This was the impetus behind both Sirius and the PCW version and Alan was well aware of the advantages.

"I sometimes do stage lighting using an old manual controller," he told us. "You have a big bank of faders that you just slide up and down manually. All the cues are written down on paper, and it gets pretty frantic at times. You have to set up one scene and keep an eye on stage to see what's going on, so you don't miss the changeover."

So what was different when using the PCW? "The beauty is," explained Alan, "that you don't have to worry about the next scene. All the light settings are saved at your leisure on to disc. When it comes to doing the show, you just press the right button at the right time, and away you go."

The right time is, of course, at the end of every scene. But, here curiosity began to take over. Just what was in the black box? And how did the whole jigsaw fit together?

"Do you want me to get technical?"
Alan asked disarmingly. When a
Computing and Electronics
undergraduate uses the word 'technical',
you know they mean business. So, to cut
a very long story short, here is how it all
works – straight from the horse's mouth.

"What you see on the screen is written in BASIC," explained Alan.
"But the part of the program that sends information to the box is in machine code." The box is connected to the expansion port, at the back of the PCW and once the information has reached the black box, it is translated into ordinary electrical signals. Alan described the box as being, "full of standard electrical components bought from a catalogue." Finally, the electrical signals are sent down the cables to the lighting racks where they control the brightness of individual lights on stage.

The whole project took Alan and a fellow student, Jonathan Adler, about eight months to complete, and it all started from a fairly casual idea.

"We both have an interest in lighting," explained Alan, "and we just thought that it would be nice to turn the computer into the controller." Once the idea had germinated, neither could resist the challenge, and the project took off – not in search of the end result – but

simply "because it was there."

Nonetheless, it has paid for itself. The real Sirius controller, upon which Alan and Jonathan's system was based, costs £60 to hire for just one week. Their version cost only £120 to build and, after two weeks of use, Alan was able to assure us that it is just as good as the prototype.

Cloud ten

The system was duly christened Q-Nim. "We figured that Sirius sounded like quite like Cirrus, which is the name of a cloud, so Q-Nim is the name of another type of cloud. Rather corny, but we like it," Alan told us.

Q-Nim's first call of duty was the opening song in Godspell, a bright, bouncy number that called for a suitably jolly atmosphere. Alan designed the lighting to match.

"As you can see, there is lots of colour in it. We've got a pink backdrop there, to give an air of brightness. There are also two very bright lights at the back, one in orange, one in pink. The rest of it is lots of general white lighting to make sure that all of the actors can be seen clearly."

And how is Alan's PCW put to use when it is not involved with Q-Nim? "I use it to write my academic work," said Alan, "although basically I bought it as a computer not as a word processor. I mainly use it for projects like this."

His other little projects include a speech synthesiser and an LED display that would not look out of place in any shop window. The PCW, it seems, can do practically anything, once you know how. In fact, Alan's only criticism of the machine was the lack of literature to



A scene from Godspell, which features students from the University of Durham as the stars. Although it's not in evidence in this photograph, the PCW is responsible for controlling the lighting - with the help of a clever program written by Alan Dennis

support such endeavours. "Once you get down to the nuts and bolts level," he told us, "the PCW is a very good machine. But you do have to work things out for yourself."

This is obviously not too great a hurdle for Alan, especially in view of the detailed work which must have gone in to Q-Nim. In fact, we're willing to bet that he was probably playing around with wires and circuit boards as soon as he could crawl.

So just how early does a technical genius have to start these days? "Not that early," replied the budding whizz-kid. "I was about thirteen, I guess." Hmm, sounds fairly precocious to us, Alan, but keep up the good work!

Shedding a little light on the subject...

So what does a scene look like when you are sitting at the controls? We got Alan to tap a few keys, and show us a scene called Willows, seen in the screenshot on the left. "This is when we get to use the infamous mirror ball," said Alan. We begged him to tell us more. "There's quite a melancholy song to go with this scene, and there are a couple of dancers at the back, waving their arms about in an arty sort of way. To match the atmosphere, we chose a green backdrop, with a bit of blue mixed in, to get the melancholy effect. In this scene we also have two floodlights at the top to give us lots of blue light on stage."

In the Q-Nim program you can see that these four lights are set at differing levels. The revolving mirror ball (channel v) is set to full brightness. The green light is the t channel, and the hint of blue is channel u. Blue floodlights are set using channel p.

"If you wanted to adjust any of these lights, the level is affected either by clicking on the arrows with the mouse, or by typing in a letter," explained Alan.

Once the multifarious colours are set up, each scene is given a name and number: this one known forever more as Willows 110. In addition, so that the stage does not plunge into pitch blackness between scenes, there is also a transition time, where one scene fades gently in to the next. In this case it is set to 3 seconds.

Clicking on the Go button will change the lighting slowly to the next on the list – Willows2.

This sounds just about all a lighting engineer could ever wish for, but there are a few extras that make the frenzied life of working behind the scenes just that bit more pleasant. For instance the option 'Blind' allows the user to retrieve screens from the script and edit them, without effecting what is happening on stage.

And to help keep all those artistic temperaments cool, there is the 'Give Me' option. "In rehearsals, when people are working on sets," said Alan, "and I'm trying to sort out the lights, we are frequently plunged into darkness. The cry

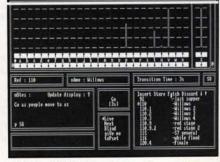


Q-Nim, from start to finish, is a very well thought out, professional-looking program. This opening screen is proof enough

goes up 'Give me some lights!' Pressing 'Give Me' puts on full lighting instantly."

Another option, Topset, allows Alan to put a limit on each channel. Normally it is completely full but if, for instance, somebody knocks a light and it is pointing in the wrong direction, it can be turned off for the remainder of the show.

Alan seems to have thought of everything, and he has succeeded in making the program quick and easy to use as well. If only, we thought, all program developers could be as conscientious as this one! We can't help feeling that Alan Dennis will be a name to look out for in the future, in the world of software for the PCW...



In Godspell, 'Willows' on the stage is a swirling, melancholic kind of scene, but to the PCW it looks – rather less romantically – like this



BOOK LOOK

USING THE AMSTRAD PCW9512

by John Campbell

£9.95 ● Heinemann New Tech ● Halley Court, Jordan Hill, Oxford ● ISBN 0 434 90201 2

VERDICT: A very clear and informative book, especially for the beginner - and of use to 8000 series owners too

This book is the little sister of Exploiting the Amstrad PCW9512, which was the subject of last month's Book Look. Its author is one of the coauthors of Exploiting, it is part of the same 'Step-by-step' series, and it covers some of the same ground. Exploiting, though, was aimed at those who had been using their computer for some time; Using the PCW9512 is aimed entirely at the beginner.

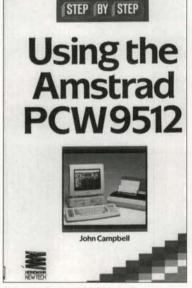
As such, it has to be very lucid, and very basic. It is both of these. The text is organised very clearly, with highlighting techniques such as bold printing and capital letters used to great effect. The language is consistent, which means that a term once defined, or a procedure described, comfortingly retains the same name throughout.

Not everything about the book is absolutely perfect - but then that is quite a tall order for any publication. In this book, for example, there are plenty of screenshots, but they seem to have been taken from an PCW8256 computer, rather than a PCW9512. Can you tell and does it matter? Well, yes you can, and yes it does. An 8256 has an A: drive capacity of 173k, whilst the 9512 has 706k; and the 8256 has an M: drive capacity of 62k, whilst the 9512 has something more akin to 300k free in LocoScript. So you are actually getting far more disc space on computer than the book implies. A bonus to those in the know, but a possible source of confusion and perhaps concern, to those new to the game.

Screen shocked

More serious is the fact that at a couple of points this use of 8256 screenshots actually disagrees with the text – on whether your printer control status shows 'PCW9512' (in the text) or 'Matrix' (which is what appears on the screenshot). In the same vein, there is a screenshot towards the end of the book that purports to show the contents of a 9512 CP/M systems disc. It doesn't – it shows an 8000 series disc, with many fewer files than the 9512 disc.

Other small flaws are more a matter of what the book does not tell you. For instance, looking ahead to the short CP/M section which comes at the end of the book, there is no mention at all of the 8000COPY utility which is essential for reading certain discs on the 9512. Apart from these, however, there are no



Using the Amstrad PCW9512: "Easy to follow, and full of sound advice"

quibbles with the book, as it takes the new user through the early stages of PCW ownership. Starting with 'Plug the machine in to the mains,' it moves on through booting up and gets CP/M running at the earliest opportunity, using it to copy the master discs.

And then the plot takes an unexpected twist. We are not taken to the editing screen to fiddle around with existing text from disc; we are not shown how to create a new file. No. Instead, the book shows us how to turn the PCW into an electronic typewriter, using direct printing mode.

A little reflection reveals some solid reasoning behind this. Many people get their PCW as an upgrade to their type-writer. The best way to assure them that they have not taken a quantum leap into the unknown is to show them that their new machine, rumoured to be devilishly incomprehensible, can actually do exactly what their old one did!

What is more, the process of loading direct printing means the beginning of a life-long interaction with the computer; using it will acquaint the owner with the keyboard and its layout, and (very importantly) will bring the printer into use. Quitting it will give you confidence about moving around the various sections of the program, plus the reassuring knowledge that you can even get back to where you started from – in this case, the disc manager screen.

Even from this small experiment it will become clear that the PCW can do far more than a typewriter, and with confidence on the up, the new user will feel equipped to go ahead and see what the rest of the computer can do.

But only very slowly. A whole section of five pages is devoted to 'Interpreting the Page display'; four pages explore the intricacies of moving the cursor around the text, and another large section deals with the disc drives which is fair enough, since these constitute one of the main differences between a typewriter and the PCW.

The same logic that put direct printing before all else directs the rest of the book. Having equipped the user with a basic understanding of the machine, it goes on to explain creating, editing and printing a document; then comes "Tailoring page layouts" and "Enhancing the printed page".

It is at this stage that it becomes apparent that the book is about the 9512, not the 8000 series. The information on changing the print wheel and the print cartridge are not going to help dotmatrix owners, and because of the limitations of the daisywheel printer the operations to get italics, different sized characters, alternative character sets and so on are not covered.

On the other hand, the advice on using different printers from LocoScript is extremely valuable. Infact, it is one of the best short explanations of the problem around.

Optional extras

A second area in which the average 8000 series owner is going to feel left out concerns the additions that are bundled with the basic LocoScript program on the 9512 – LocoMail and LocoSpell (although again the screenshots of the Disc Manager disagree with the text – they omit the LocoMail commands). Again, though, the coverage given to these is clear, concise and quite excellent. In particular the "When and why of mailshots" section should prove useful, and may well persuade 8000 series owners that an upgrade is in order!

The final section of the book picks up the discovery of CP/M that was left hanging in the first section. It is referred to as "housekeeping" and covers the major utilities, such as DIR, REN and PIP – all you need to know, but not what to do with that knowledge!

An excellent book, then, for the beginner on the PCW9512 – easy to follow and full of sound advice. The 8000 series owner prepared to identify and pass over a few irrelevant sections will also not be disappointed. And where do you go eight months later when you begin to feel the urge to widen your computing horizons...where else but "Exploiting the Amstrad PCW9512"?

FOREVORD

THE WORD PRE-PROCESSOR

FOREWORD is the new program from Software Imperative, the people who brought you FLIPPER. It's a tool for writers: not just authors (though they'll certainly want a copy) but letter writers, report writers, sermon writers – in fact, anyone who works with words.

FOREWORD bridges the gap between ideas

and finished pieces of text. It helps you put your thoughts into words, without worrying where those words will fit on the page or what typeface they'll be in.

"BUT I'VE ALREADY GOT A WORD PROCESSOR."

FOREWORD isn't a word processor, nor is it intended to replace one. Word processors are tools for presenting text on paper, and most of them do this

very well. FOREWORD is designed for the stage before this, the creative stage of writing where your ideas are still too vague or unstructured for normal word processing. That's why we call it a "word pre-processor".

FOREWORD is specially designed to stop you getting bogged down in detail as your document

grows. With a word processor, as soon as your text takes up more than a screenful you start losing that all-important "big picture" – the overview of your work that's the key to good writing. FOREWORD's powerful "Hide" and "Show" functions give you back that overview. Even when you've typed in thousands of words you can still get a clear picture of your piece at the press of a key, collapsing the

on-screen document down to its bare bones.
FOREWORD also shuffles ideas around far better than a WP can. The "Move" function lets you pick up an idea and move it wherever you like within the document, regardless of how much text the idea comes with. There's no block-marking involved: whether it's one sentence or a hundred, you can pick an idea up or put it down again with a single keypress.

"SO WHAT HAPPENS WHEN I'VE CREATED MY TEXT?"

Because FOREWORD doesn't deal with typefaces or layouts, you'll need to get your finished text into a word processor or DTP package before you can present it attractively on paper. Normally, transferring data from one program to another is a fiddly, time-consuming business, but FOREWORD makes the task guick and easy.

For one thing, there's no need to quit FOREWORD to use your word processor. FOREWORD is a pop-up program: it can share

memory with Locoscript 2 or CP/M, hiding "in the background" until you summon it. Just hit SHIFT-ALT-EXTRA and in 1 second you'll be looking at the FOREWORD editing screen. Hit SHIFT-ALT-EXTRA again and 1 second later you'll be back in CP/M or Locoscript 2, exactly where you left off.

Also, you don't have to save ASCII files in

FOREWORD and import them into your word processor. FOREWORD's "Transfer" function can force your text directly into a word processor document as if you were typing the words yourself. (Of course, if you find Transfer's 150-200 words per minute a little slow, FOREWORD is quite happy to save your text as ASCII:

it supports two different kinds, plus a special format for WordStar and NewWord users.)



 A carefully designed menu system makes FOREWORD easy to learn and use.

• Writing for print? Then you'll appreciate

FOREWORD'S fast, accurate word counter.

SOUNDS COMPLICATED?

Don't worry: FOREWORD has a carefully designed menu system you'll be able to master in minutes. What's more, FOREWORD supports all those

special-purpose keys you're used to, like UNIT/PARA, WORD/CHAR and LINE/EOL. CUT and COPY trigger lightning-fast block operations, EXCH/FIND gives you speedy search and replace functions, and PTR summons the Printer menu. (We couldn't find anything for the RELAY key to do: FOREWORD reformats its paragraphs

automatically, as fast as you can alter them.)
FOREWORD's even easy to install: it comes

on a self-booting disk you can back-up and use immediately. No need to copy files or fiddle with PROFILE.SUBs – just switch the machine on, pop FOREWORD in the drive and it'll load automatically.

Please send me:

FOREWORD

FOREWORD

\$64.90 (save £5)

VITAL STATISTICS:

FOREWORD has a fast, accurate word-counter, can edit up to eight documents at once, and has no maximum file size. It takes a minimum of 112K of RAM, and a maximum of 2 Mbytes – the most a PCW can be fitted with.

FOREWORD is fully compatible with Locoscript

v2.16 onwards (including LocoSpell, LocoFile etc), and with all legal CP/M programs. To run FOREWORD you'll need a PCW with at least 512K of memory. FOREWORD supports all SCA and Isenstein memory add-ons. For use with FLIPPER 2 PLUS, and with non-legal CP/M programs like Mini Office and Microdesign II, extra memory is essential. (FOREWORD won't work with earlier versions of FLIPPER, but you can upgrade these for free if you order FOREWORD at the same time.)

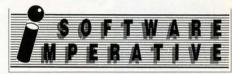
FOREWORD DOES NOT SUPPORT:

- File passwords and file time/date stamping;
- Foreign-language keyboards;
- Hard drives;
- Printers on external serial/parallel interfaces (though the 9512's built-in parallel port is fine);
- Single-density or single-sided B: drives (though 720K 5¹/₄" or 3¹/₂" drives are okay).

DON'T FORGET:

We still sell the absolutely essential FLIPPER 2 PLUS. This is the only utility that lets you split your PCW between CP/M and Locoscript 2 (or between two lots of CP/M – or even between two lots of Locoscript 2, if you've got the memory).

In as little as two seconds FLIPPER 2 PLUS can whisk you from one side to the other, without losing your place. Why reboot every time you need to get between CP/M and Locoscript 2? FLIPPER 2 PLUS can do the job quicker and better. (FLIPPER 2 PLUS requires at least 512K of RAM, and is fully compatible with SCA and Isenstein memory add-ons.)



Software Imperative, 11 Chapel Row, Queen Square, Bath, Avon, BA1 1HN, proprietor A.J.Wilton, tel (0225) 425315.

Please send me:	•8
☐ FOREWORD – I enclose a che ☐ FLIPPER 2 PLUS – I enclose a ☐ FOREWORD AND FLIPPER 2 £64.90 (save £5)	
Please upgrade the enclosed FLIPPEI	R/FLIPPER 2 master disk to FLIPPER 2 PLUS:
☐ I enclose a cheque for £5.00☐ I've ordered FOREWORD above	re, so I'm entitled to a free upgrade
Prices include UK postage and pa payable to Software Imperative.	acking and VAT. Please make all cheques
Name	
Address	
	Postcode
Mail this coupon to:	
Software Imperative 11 Chanel B	ow, Queen Square, Bath, Avon, BA1 1HN

Making Waves

Breaking into the competitive world of radio script writing can seem like a daunting task. Nick Vandome equips you with some useful advice

n these days of multi-channel, multi-screen television it would be easy to think that the trusty institution of radio is getting shunted into the background. But thankfully the reverse seems to be true; as the television audience fragments, more and more people seem to be turning to radio for entertainment. This can only be good news for writers, for

Hamish Wilson: "Radio is about sounds, music and effects. People should consider all these things when they write a radio play"

two reasons: radio writing is easier to break into than television, and the BBC have a vast radio drama output, producing over 400 plays and numerous short stories every year.

But what is involved in producing scripts for radio? We talked Hamish Wilson, a radio producer at Radio Scotland in Edinburgh. First impressions were very reassuring. Both Hamish and his assistant use Amstrad 9512s for their work and there were several copies of 8000 Plus tucked into his bookcase. Indeed, there seemed to be Amstrads scattered throughout the building, and the scripts used are written and printed on 9512s and the final copy is used by both producers and actors.

Understand the medium

It is clear that as much effort should go into the act of planning a radio drama as writing it. As Hamish explained, you should not just think about writing a play but specifically a radio play. "Radio is a particular form of dramatic medium which is very intimate in its nature; uniquely, in radio you can actually get inside somebody's head and listen to their thoughts while the rest of

the world is going on around them.

"Radio drama is not just about the spoken word; it is also about sounds, music and effects. People should consider all these things when they are writing a radio play. Writers should not feel constrained by the notion of not being able to see the characters - people will see them in their imaginations. Do not feel that you have to exclude visual notions from the script."

The BBC offers a wide range of outlets for radio drama; from the institution of the Morning Story on Radio 4, to plays ranging in length from thirty minutes to an hour and a half. Before you turn your hand to any of these Hamish Wilson urges that you sit down and listen to as much radio drama, of all varieties, as you can. This way you should be able to get to know and understand how the medium works and, hopefully, you will find a type of drama that best suits your style.

Talking to Auntie

Having decided what type of play you want to write you can then approach the BBC. In the first instance it is best to contact your regional centre, and Hamish Wilson says that it is not always necessary to send in a complete script. "It is often best when writing to a producer for the first time to submit a three or four page outline rather than sit down and blast in your full 320 minute version of War and Peace. A lot of people worry about outlines because they are very difficult to write since it is pre-empting an idea that is not yet fully formed. Once the play starts to be written it may be that it takes on its own organic life and moves away from what was originally set down in the outline. As long as this is better than the outline then you are winning.

"When you send in your outline you will get a letter saying it has arrived. Then after a relatively short time you will get a letter saying, 'We don't think it is quite right, for these reasons... but do keep in touch and let's see what else you have.' Or you may get a letter saying it is an interesting idea, come in and talk to us. If the idea is to proceed from the outline you will end up talking to the person who will be producing the play. In radio, unlike TV, the script editor, the producer and the director are one and the same person. He/she will work with the author and bring the text on until it is ready for production. He

will then cast it, take it into the studio, produce it, edit it and write the trailers. Authors who are new to writing drama find it very reassuring because you get to know the person with whom you are working quite well."

If your outline is accepted then the BBC will pay you half of the commission fee and tell you to lock yourself in your garret for a few weeks and write the play. When it is finished, and the producer is happy with it, you will receive the second half of your commission. You will then be invited along to the read-through and also as much of the recording as you like. This is where you will see your printed script being turned into a piece of living, breathing drama before your very ears.

The right wavelength

Radio is one medium where you can write a play about virtually any subject and set it in any time and any place - as long as you can create that time and place in the listener's imagination. Most importantly write about subjects with which you feel comfortable. These not necessarily be elaborate or exotic: good stories can appear out of any subject.

When it comes to dealing with controversial subjects such as HIV or drug abuse Hamish Wilson says that no play would be rejected just for writing about these topics. However, he did issue a word of warning. "There is a big difference between writing a play which as part of its existence addresses a controversial subject and sitting down to write about, say, drug abuse in the form of a play. The important thing is that the play and the dramatic tension between people has to come first rather than the play becoming a billboard for a cause. It would be equally wrong to deal with it in a hole-in-the ground, back alley kind of way, but it is a very difficult area, and one likely to provide more pitfalls than smooth paths.'

Length is also an important consideration when you are planning your play and Hamish offered some advice, particularly regarding shorter plays. "If you are writing a short play of thirty minutes then it is best not to have too many characters. Each new character has to be very clearly and separately identifiable, vocally, and new voices take a bit of getting used to. If you have ten characters in a half hour play it becomes a problem. But if you have two characters the audience very

Fair pay

Rates of pay for radio drama at the **BBC** vary depending on whether you are an established writer or a newcomer. For a play a newcomer could expect £18.85 per minute while the rate for an established writer would rise to £28.70. For short stories the rates start from £93.00 for 15 minutes.

quickly learns who they are and can concentrate on the story."

Obviously, the longer a play is then the more chance you will have to develop themes and characters but you should be aware of the dangers of getting too involved and complex. This does not mean that you have to stick to the thirty minute play: if you feel your play should be sixty or ninety minutes long then write it as such. Due to the nature of the medium, the only surefire way of working out how long your play will be is to sit down with a stopwatch and read it aloud - making suitable allowances for dramatic pauses and sound effects.

Getting in tune

Since Hamish Wilson has spent over fifteen years in radio drama he is well aware of the pitfalls that can befall a writer new to radio. "My experience is that I often get plays where the author seems to have a very good ear for dialogue but not a good idea of structure. Despite the need for good dialogue you have to sort out how it's going to begin, what is going to happen in the middle and when it's going to finish - and why. On other occasions you get complicated plots, very carefully structured, with dialogue that feels very wooden. Sometimes I wish I could blend the two styles together.

"The type of thing to avoid is what I call 1920's radio drama writing when writers thought they had to provide all the visual information for the audience through the dialogue. Even the smallest stage direction seemed to be incorporated into the characters' lines. These days the writing has become a lot

more sophisticated, partly because we are dealing with a much more sophisticated audience."

It seems that the best scripts have minimal stage directions. If the script is well written then the producer will be able to do the rest. Similarly, scripts do not have to be written in dialect; with good casting, the script will be given accurate regional accents if needed.

Striking a prose

Apart from original plays, another source of radio drama is the dramatisation of existing pieces of prose. If you want to try this the first thing to check is whether the copyright is available. You can either do this by checking with the BBC (they have a department in London that deals exclusively with the tortuous intricacies of copyright) or write to the publishers of the work in which you are interested.

Even if you overcome this formidable hurdle it is still a difficult area for a new writer to break into, as Hamish Wilson explains. "The processes of dramatisation are delicate and most producers in radio will turn to writers with whose work they are very familiar. If you want to try it I would suggest a short story from someone like Charles Dickens and just give it a go. The big problem is that there is an awful lot of narrative in a piece of prose and it has to be got rid of by turning it into drama, while not losing the narrative thread. Again this is where effects can come into their own."

One excellent outlet for fiction writers who are interested in having their work on the radio is the Morning Story. This is a fifteen minute short story that is broadcast four mornings a week on Radio 4 at 10.30am.

As with shorter plays the story should be strong, relatively simple in plot and not involving too many characters. The length should be approximately 2100 words and again it is best in the first instance to send it to your regional BBC centre.

The down side

Just like every other form of writing, there is always the possibility of rejection when writing radio drama. In the BBC, reasons will be given for rejecting a piece of work and if the producer thinks the writer shows promise then they will be encouraged to send in any more material that they have. This will be a genuine request and not an attempt to lessen the blow.

However, if your work is rejected by one regional centre then do not try and send it to another one - the BBC has a database of all the scripts that they receive and whether they have been accepted or rejected. So if your script has been rejected in Birmingham do not try sending it to Cardiff as they'll know that it has already done the rounds.

In some ways, radio may seem less glamorous than television, but the excitement of the medium lies in being able to stimulate peoples' imaginations - as one young girl noted when she wrote to the BBC to say that she enjoyed radio rather than TV because the scenery was more attractive.

Considering the number of opportunities it is also an attractive proposition for writers: soon you may be hearing your work over the airwaves as well as seeing it on the printed page.

Regional BBC Centres

Broadcasting House, Whiteladies Road, Bristol BS8 2LR. Broadcasting House, Llantrisant Road, Llandaff, Cardiff CF5 2YQ. BBC, Pebble Mill, Birmingham B57 QQ New Broadcasting House, Oxford Road, Manchester M60 1SJ **BBC** Radio Sheffield, Westbourne Road, Sheffield S10 2QU. Broadcasting House, Queen Street, Edinburgh EH2 1JF. **Broadcasting House**, Ormeau Avenue, Belfast BT2 8HQ.

For a full list of all radio stations and departments check your library for a booklet called Contacts, published by Spotlight, 7 Leicester Place, London WC2H 7BP, and edited by Anne Merrall.

How to prepare a script for a radio play

While they do not insist rigidly on a specific format for scripts, the BBC do work to their own layout and they would prefer to have scripts sent to them in this form. Many regional BBC stations use PCWs to produce their work. It is well worth checking with your local centre before you submit any work; it could mean that submissions could be sent in on disc. However, it is always wise to submit a hard copy version even if PCWs are being used; it is more tangible a form to work with, and if you back it up with a disc bound version, changes can be implemented easily.

So, just how should a script look on the printed page? The layout required for plays is rather awkward, but LocoScript makes it easy to achieve. This is how.

First set a layout in your document with margins at 10 and 80 and tabs at 15 and 30. LocoScript 2 At the start of the new document, press [f2] and select 'Change layout'. Press [f3] and select 'clear all tabs' then [ENTER]. Move the cursor to 10 and press [f1] [ENTER] to set the left margin. Now move to 15 and press [+] to set a tab. Move to 30 and press [+] again to set another tab. Move to 80 and press [f1] [down cursor] [ENTER] to set the right margin. [EXIT] back to the document. LocoScript 1 At the

t 1 Pil2 LS1 tions f2=Layout	Editing text. Printer idle, Using to CR+0 LPS Page 1 lin f3=Style f4=Size fS=Page f7=Spell f8=Options
	(A) A COLLEGE OF SOUNDS. CAR ENGINE TOLING MOREN'S VOICES SPENDERING THE SOUR DUSTION IN A VARIETY OF THE SOUR PURSUES AND THE VARIETY OF THE STREET BOOK OF THE SOURCE OF
	PATHOL CAB MITH DIANA MALEUP A SUBBUTE BUT SIGNIAS ACCOMPANIMENT OF POLICE MESSACES ON THE CAB MADIL (-UL) W
	This is the Inspector now Just a few more questions (*UL)HE STRETCHES OVER TO OPEN THE CAR- COOR TOR DONOCHUE("UL)#
	Towning, sir this is Diama McLeod. She reported the incident, and she's already identified the body.e

How your play script should look on screen. Note the layout, and that special 'alt tab' after the colons - shown as an arrow with a flat end - that makes the following speech assume the correct layout

start of the new document, press [f7] [ENTER] [f7] [f1] [down cursor]. If there are any tabs set (shown by arrows or blobs in the ruler line) remove them by moving over them and press [-]. Move the cursor to 10 and press [f1] to set the left margin. Move to 15 and press [f3] to set a tab. Move to 30 and press [f3] again to set a tab. Move to 80 and press [f2] to set the right margin. [EXIT] back to the main document.

In the document, make phrases for each character as follows. For "King" for example, type the following (with no spaces):

\$. [TAB] KING: [ALT] [TAB] Now put the cursor at the beginning of this line, press [COPY], move to the end with [EOL], and press [CUT] then k.

From now on until you switch off, pressing [PASTE] k not only inserts the name of the this character, but also makes sure his lines assume the correct layout, i.e. each new line starting automatically at 30.

Repeat for other characters, storing "Diana" under d, "Donoghue" under e and so on. For incidental characters enter their names as follows:

\$. [TAB] MAN IN PUB: [ALT] [TAB] then type the speech.

For directions, press [TAB] then [ALT]
[TAB] then [+] ul [SHIFT LOCK] and type the text.
End with [-] ul [SHIFT LOCK].

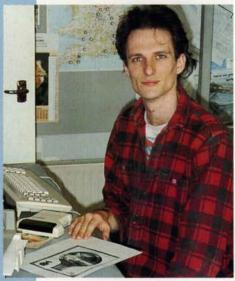
You may be required to number the speeches. If so, just before printing out your final draft, go through changing the \$s to numbers, starting at 1 on each page. Use [FIND]\$ (and subsequently just [FIND] [ENTER]) to jump automatically to the next \$. Otherwise, press [EXCH] and replace all \$. by nothing.

Right to Reply

If you are having difficulty getting to grips with a new piece of software, your first reaction might be to contact its authors. Creative Technology's Nik Holmes (of Micro Design fame) looks at some alternatives

hen you buy a new program for your PCW, it is fairly likely that you will eventually come to a grinding halt. This is not necessarily a reflection on your own capabilities: it probably suggests that the software and its accompanying manual are not as friendly and easy to understand as you would like. But what can you do? Should you seek an explanation from your dealer? Contact the authors of the program? Or should you feel obliged to spend a vast amount of money on some kind of training? This is in fact part of a

straightforward a situation as you might imagine, because the hard facts of business life make after-sales support a very costly direction in which to expend the resources of a software company. It is a shrewd software author (or company) who really does take the lion's share of the revenue out of his/her program: remember that as well as being written, a software package must also be documented, manufactured, distributed, advertised, and retailed, and everyone wants a piece of the action. Free and unlimited technical support is simply not viable if there are too many people using it: if software houses spend all their time on technical support, no new programs will ever be written.



Nik Holmes: "Free and unlimited technical support is simply not viable if there are too many people using it; if software houses spend all their time on technical support, no new programs will ever be written."

Supportive measures

So how does a software company organise good technical support without going bankrupt? There are three basic strategies: first, make the software and the documentation so comprehensive and so simple that anyone can use it without help; second, charge a fee for software registration, and support only registered users; and third, use the '0898' telephone lines to charge people automatically according to the time they actually spend using the support service.

The first of these alternatives is obvious, and it is in everybody's interest to pursue it as far as possible. However, documentation can never satisfy everyone's needs, and in the PCW world, the machine's own manuals are often incomplete and difficult to use. A significant proportion of the calls we receive are nothing to do with our software, but refer to the PCW hardware, operating system, and sometimes even other companies' programs. Providing a free consultancy service for other people's products is a short and painful route to the workhouse, but it's very difficult for us to support our own products properly without getting involved with more general topics. The other important point about documentation is that while we have long since incorporated the answers to all the most frequent user queries into our documentation, this does not necessarily mean that people read it. Even the offer of a free newsletter containing hints and advice is only taken up by about 10% of users: people find it easier just to ring us up.

The second alternative sounds reasonable, but actually represents a

logistic nightmare. For a small software company like ours which receives 30-50 calls every day from nearly ten thousand users, the paperwork and administration of a registration system, and the need to check up on every single caller before giving out any precious information, only increase the workload. The cost would also be a problem: in the business computing world, corporate users pay substantially for 'maintenance contracts', but this only works if the number of individual clients is manageably small, and the fees are extortionate. Support is undertaken as a business venture by support specialists, not by the software authors.

The last option, the dreaded 0898 number, is at least fair: it charges users according to how much time they spend on the phone, and the cost is a powerful deterrent which may convince people to look just a little harder in the manual to find the information they require. The system is, however, a poor discriminator, with no humanitarian understanding of the fact that those most in need of help are sometimes those least able to pay for it. It is also a means by which Telecom can make lots of extra profit out of all of us.

Friendly user

So given the limitations of all these alternatives, I would like to take this opportunity to promote a new approach. One of our users, Phil Cole, is trying to set up a MicroDesign2 user group which, among other things, could function as a network through which those experts in MD2 who are happy to receive phone calls and dispense their wisdom on a strictly non-professional basis could do so. Networks like this could gradually distribute expertise around a large number of enthusiasts. They could provide the opportunity to get to know each other, have meetings and improve understanding of both the program and the PCW in general. The software houses would then have the time to produce new programs for everyone's use and enjoyment.

Call me a dreamer. Or an idiot. But all I want is to spread friendship and happiness, and to give us time to work on new projects which might continue to pay the rent after MicroDesign2 has gone to that great PD library in the sky. Send an SAE to Phil Cole, at 15, Elsham Close, Bramley, Rotherham S66 OXZ – and help build a better world.

larger question, to wit: 'when I buy a computer program, what am I actually getting for my money?'

According to law, the answer is that you are not even buying the program:

According to law, the answer is that you are not even buying the program: you are only buying a licence to use it. The law certainly says nothing about technical support, or any other form of after-sales service: you are entitled to a working program disc, but if you have any problems using it, you're stuck.

Good high-street dealers will help as much as they can, and they generally have some basic knowledge about the programs they sell. Unfortunately, most software buyers insist on buying their programs from the cheapest sources, which very often means 'box-shifting' mail-order companies who are not interested in giving technical support. In practice, the software authors end up doing most of the support. Fair enough, you may say, the software company are responsible for the product, they make the most money. But this is not as

PUT THAT MANUAL DOWN AND LISTEN!

Most people find it hard to learn from the manuals, but don't realise there's a better way. Reeltime will teach you all you need to know, at a fraction of the price of a training course, all on your own computer! With instant help via the phone Hotline, there's no better way to learn.

PCW Courses:

LocoScript 1 & 2 CP/M Computing dBase II, SuperCalc 2 Mini Office Pro

£29.95 +vat

New: The PCW Flving Start! Master Locoscript £49.95 +vat

Other courses: We have a range of courses for all Amstrad computers; IBM/compatible PCs; Olivetti PCS; plus all the popular software including Lotus, SuperCalc, Word Perfect, WordStar, Ventura & Pagemaker from £29.95!



All courses by return. Prices include P&P! Send cheque to: Head-Line Communication Limited, PO Box 22, HEREFORD, HR4 8UW

or phone 0602 603623 with Access/Visa no.

Hit for six!



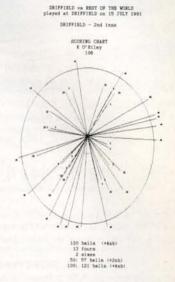
The traditional cricket score book has been replaced. Scorecard is a new easy-to-use program that will do all the scorer's hard work. Totals, run rates, bowling analyses... all are kept by the PCW. and can be printed out - in LocoScript if you like - in anything from summary scorecard to an in-depth ball-by-ball analysis.

If you have a PCW 8256 or 8512, it will even prepare and print out scoring charts for any member of the batting side. showing the result of each scoring shot. In fact, it'll do everything those scoring computers do on television. Scorecard is so quick and easy to use it can be run side-by-side with a normal scorebook if desired - yet is comprehensive enough to replace it.

It's also ideal for playing "alphabet cricket" games, making it a great gift for a cricket-mad voungster!

Scorecard works on all PCWs.

Send PO/cheque for £14.95 (with chart facility, £19.95) to Sticky Dog Software, 46 Avondale Road. Bath BA1 3EG. Tel: (0225) 429073.



unning

COMPUTER SERVICES

Dept 8, Unit 13c Sunrise Business Park, Blandford Forum, Dorset DT11 7TE

All prices INCLUDE delivery. Just add VAT at 15%. Cheques/PO's with order or phone our credit card hotline before 3pm for same day despatch (subject to availability) by 1st Class post or carrier for next day delivery (U.K. Mainland)

(0258) 480660

VISA

RIBBONS

COLOURED RIBBONS ALSO AVAILABLE FOR MOST PRINTERS ALL RIBBONS TOP QUALITY AND GUARANTEED

			per ribb	
MSTRAD	1020	1	2+	5+
256/8512 longlife	F	3.44	3.27	3.10
256/8512 Colours	F	4.30	4.09	
3256/8512	MS	3.44	3.27	
512 longlife	F	3.44	3.27	3.10
512 Colours	F	4.30	4.09	3.87
512	MS	2.95	2.80	2.66
MP2000/3000/3160	F	3.34	3.17	3.0
OMP4000	F	4.70	4.47	4.23
.Q5000	F	5.28	5.02	4.7
Colours=Blue, Red, Green, B	rown (Fabr	ic only)		
AND ALSO				
Brother M1009/1224	F	3.47	3.30	3.13
Brother M1509/1709	F	4.95	4.70	4.4
Citizen 120D	F	3.44	3.27	3.1
Citizen Swift 24	F	3.44	3.27	3.1
Commodore MPS801	F	3.34	3.17	3.0
Commodore MPS1230	F	3.43	3.26	3.0
Epson MX/RX/FX100	F	3.95	3.75	3.5
Epson LX80/86	F	2.47	2.35	2.2
Epson FX/MX/RX80	F	3.44	3.27	3.1
Epson LQ800	F	3.64	3.46	3.2
Epson LQ2500	F	4.73	4.49	4.2
Epson LQ2550	F	5.30	5.04	4.7
f.Packard D/Jet Cart		14.80	14.05	13.3
NEC P2200	F	4.95	4.70	4.4
NEC P6+/P7+	F	5.34	5.07	4.8
Dlivetti DM100/200	F	3.43	3.26	3.09
Panasonic KXP1080-83				
090-92, 1124, 1180-90	F	4.00	3.80	3.60
Panasonic KXP1524-40	F	6.90	6.56	5.2
Seikosha SP1200	F	3.44	3.27	3.10
Star LC10	F	3.44	3.08	2.93
Star LC24-10	F	3.50	3.33	3.13
Star ND/NR/NX15	F	5.71	5.42	5.14
=Fabric MS=Multistrike				

NEXT DAY DELIVERY

DISKS

3" AMSOFT CF2 5.....£9.90 10.....£17.90

SAVE THOSE RIBBONS!

RE-INK your own ribbons the new Ozone Friendly' way. One can of 'RE-INK' will do up to 30 PCW ribbons. Suitable for all black fabric...£11.26

SPECIALS	£
LocoScript 2	20.53
LocoScript 2 LocoFile 8256/8512 LocoSpell LocoScript 2/LocoSpell	17.28

.....AND ALSO

£		£
Copy Holder from 9.90	Mouse mat	4.30
Printer Stands from 8.95	Mouse house	2.58
Screen filters from 12.45	Envelopes	POA
3" Drive cleaner 4.30 Dust cover 8256 11.26	Dust cover 9512	13.00
3" Disk Boxes (30) 8.48	3" Cleaning Kit	8.95
3" Disk Boxes (60) 10.96	3" Disk Labels (20	0) 4.42

CONTINUOUS

M)= Micrope			£ per box	
	per box	1	2+	5+
11 x 9.5	Qty			
SOGSM (M)	2000	16.38	14.88	13.40
70GSM (M)	2000	17.65	16.15	14.91
BOGSM (M)	2000	19.30	17.80	16.96
90GSM (M)	1000	13.72	12.22	10.54
2 Part NCR	1000	21.14	19.64	18.20
1.66 x 9.2	5 (A4)			
70GSM (M)	2000	19.78	18.28	17.20
BOGSM (M)	2000	23.28	21.88	21.04
90GSM (M)	1000	15.37	13.87	12.19
2 Part NCR	1000	32.45	30.95	29.87

COMPUTER LABELS

AVERY LABELS - The best!

Fanfold with tractor feed holes AVAILABLE 1, 2 or 3 ACROSS - PLEASE SPECIFY

	or or received	a statut beat	LOS MOSTS
	Pr	ice per 10	000
	1000+	5000+	10000+
	£	£	£
2 3/4 x 15/16	4.25	3.04	2.68
23/4 x 17/16	5.18	3.79	3.37
3 1/2 x 15/16	4.55	3.26	2.88
3 1/2 x 1 7/16	5.64	4.56	3.87
3 1/2 x 1 15/10	8.18	6.00	5.44
4 x 15/16	5.34	3.49	3.10
4 x 1 7/16	6.39	4.50	4.05
4 x 1 15/1	6 8.19	6.05	5.47
We also have a	wide range of	other lab	els
including disk l	abels, small la	abels and	laser



USE ANY SINGLE-SHEET STATIONERY!

MARGIN MAKER MM3i

PLACES PAPER PRECISELY for TOP QUALITY RESULTS!

Save Paper & Time! Quick & Accurate! No Guessing, Fiddling, Skewing! For PCW 8256/8512. Use 100gms paper, letterheads, forms, etc. Easy to fit, adjust, use. GREAT GIFT; Treat yourself! **MM3i** Only**£14.95**



Office Hours & Answerphone Service. Just leave your Name & Number. We call you!



"MaxaFit" Professional model, stunning performance! For 9512 and 85% of all impact printers. Phone for fit details.£35.50 "Invaluable aid!" "Maxafit is of the highest quality." "Extremely delighted!" "Very accurate, an excellent accessory!" "Immediately impressed!" "A real boon!" Treat yourself!

"Simpell SOFTWARE Solutions"

Money Manager (all PCW's) Powerful Accounting. Easy to Use! £39.95 Micro Design 2 (all PCW's) Easy, Top Quality DTP. Unbeatable! £42.50 Prices Incl. VAT & p+p. Phone for further Product Details.

3 1/2" DISC DRIVE only £79.95 + £4.75 p&p

* We use the POST OFFICE'S guaranteed NEXT DAY DELIVERY PHONE IN YOUR CARD NO. TODAY - RECEIVE YOUR DRIVE TOMORROW

The normal internal 3" B drive does everything our external 31/2" B drive does except :- it won't allow you to buy discs at 75p each to read/write to PC formatted discs. And you definitely can't buy it for less than £80. Our top brand TEAC drive needs no extra power supply and is very easy to connect to the 8256, 8512 and 9512 computers via a single ribbon cable. Housed in its sleek white metal case it measures just 17 x 11 x3 cms and is supplied with full step by step fitting instructions.

3 ½" Discs 10 for £7.50

MOONSTONES 2 IN 1 PCW/PC FILE TRANSFER

NOW ONLY £29.95 when bought with the 3.5" drive £99.95 + P&P This powerful utility enables the free transfer of files to and from PC Computers and compatibles. Reads, writes and even formats MSDOS disc on ALL PCWs.

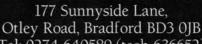
256K MEMORY UPGRADE - £24.95

Turn your 8256 into an 8512 with our easy to fit upgrade kit Full fitting instructions supplied.

SPECIAL OFFER Locomail..

£7.95 Plus £1 p&p

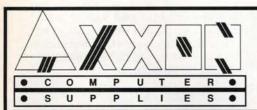
COMPACT MICROS



Tel: 0274 640589 (tech 636652)

Trade enquiries welcome





How to order: Axxon Computer Supplies Post to: PO Box 279A, Surbiton, Surrey, KT5 9QU.

VISA

Call 081-335 3180 "The Secret is Service"



● Prices are for Mail Order Only ● We reserve the right to alter specifications and prices without notice ● Quantity order please ring for prices ● Government, Educational Authority orders welcome (min £50) ● No export orders ● All trade marks acknowledged.

PRICES INCLUDE VAT & 1st CLASS DELIVERY UK & BFPO ONLY

£34.95 £52.95 £52.95 £72.95 £104.95 £32.50 £69.50 £39.50 £29.95 £15.00

3" CF-2 DISK	5 off	10 off	20 off
Amsoft CF2	£10.00	00.813	£34.95
Maxell CF2	£10.00	00.813	£34.95
Maxell CF2-D	£11.50	£21.50	£41.95
Maxell CF2 (individually cased)	£11.50	£21.50	£41.95

RIBBONS, AMSTRAD COMPATIBLE

VERY HIGH QUALITY	1 off	5 off	10 off
PCW 9512 Carbon Multistrike	£2.65	£2.55	£2.45
PCW 9512 Black Fabric Ribbon	£3.45	£3.20	£2.70
PCW 8256/8512 Carbon Multistrike	£3.50	£3.25	£3.00
PCW 8256/8512 Black Fabric Ribbon (long li	fe 14m).£3.40	£3.10	£2.80
Amstrad DMP 2000/3000	£3.50	00.£3	£2.50
Citizen 120D	£3.50	£3.00	£2.50
NEC P2200/P2+	£4.50	£4.00	£3.50
Minimum order 2 ribbons except with o	ther items ordere	d	

SOFTWARE

Cracker II Turbo Filipper 2 Plus Forword Masterfile 8000 Master Pack (Scan + Paint) Mister Scan Micro Design II Mirro Office Professional	£39.50 £34.95 £62.50 £55.50 £42.00	Sage Payroll. Sage Popular Accounts Sage Popular Accounts P Sage Popular Retrieve Stop Press + AMX Mouse SuperCalc Super DOS The Sustan Parsonalisar
Mini Office Professional	£25.95	The System Personaliser.

HARDWARE	
ProSCAN Handscanner	£179.00
AMX Mouse (w/interface)	£48.00
AMX Mouse w/Micro Design II	£79.95
And the second s	

LEISURE SOFTWARE

Junior Playtime £10.50	Scape Ghost £15.50
Ultimate Sums£10.50	The Complete Home Entertainment Centre £15.95
Ultimate Quiz £10.50	Time & Magik £12.95
School's Out£10.50	Buran £13.95
Cross Grid (Crossword Without Clues)£10.50	Terracom£13.95
Fun School 3 Under 5's£17.50	Grand Slam£13.95
Fun School 3 5 to 7's£17.50	Sir Perceval £13.95
Fun School 3 Over 7's£17.50	F16 Combat Pilot£22.95
Gnome Ranger£14.95	Tank Attack £18.00
Ingrid's Back (Sequel to Gnome Ranger)£14.95	Steve Davis Snooker£16.95
Tetris £15.00	Brian Clough Football Fortunes£15.00

SCA interfaces (serial/parallel) for SCA RAMPACS Amstrad PCWs Professional £48.80 768K . 1.5Mb Professional Plus

DUST COVERS 8256 / 8512 and 9512

PCW 9512 + Sheet Feeder (3pcs)..£11.55 NEW!! Kador Seal 'n' Type Keyboard Protector PCW 8256/9512/8512 £13.50 each

BOOKS	Program your PCW (Mallard)	£8.50
DUUNG	PCW Super Code	£13.95
LocoScript II User Guide£19.95	Mastering Amst 8256/8512	£9.95
Locomail User Guide £19.95	Illustrated Locoscript	£10.95
All in one Mini Office Professional£11.95	Locoscript II + Mail, File, Spell	£10.95
DeskTop Publishing Amstrad PCW£9.95	Protext PCW User Guide	£10.95
Mallard Basic Intro & Ref £9.95	Using Amstrad Word Processor	£9.95
PCW Machine Code £13.95	Using the Amstrad PCW9512	£10.95

BITS	&	В	0	BS

3" Head Cleaning Kit	£4.95
3" Head Cleaning Kit 9512 Daisy Wheels Printer Cable D25-CEN 36 (9 seri	£5.95
Printer Cable D25-CEN 36 (9 seri	ies)£9.95 eries)£11.95

New! Re-Ink (Re inks Fabric Ribbons)	£12.50
3" Amstrad storage box (10 cap)	£5.95
3" storage box (5 cap)	£2.50
3" individual plastic case	50p each
Margin Maker MM3i (8256/8512)	£14.50
Tracey	£7.95

Headline News

Making the headlines can be much easier than you think – when call Micro Design to your assistance. Alec Rae finds out how

n our series of articles we have looked at all aspects of graphics production except for the one everyone would probably expect – the newsletter.

This is not because Micro Design 2 is not able to handle newsletters. Far from it. A file, several feet thick, in Creative Technology's gallery of user's work, testifies to the fact that people can and do regularly produce a wide variety of newsletters using the program.

Micro Design 2 obviously can produce full A4 page newsletters and with a decent printer the standard of output can be quite impressive. But, of course, there are techniques involved in making sure the finished product looks really professional.

One major element of any newspaper or magazine page is the headline. The large, bold, text immediately catches the attention and you need only look at any of the daily tabloid newspapers to see whether they think that banner headlines are important or not.

Tied to the Masthead

This is particularly important when you are producing your masthead. The masthead is the title at the top of the first page which tells whether you are reading 8000 Plus or the Stone Age Basket Weaver's Chronicle.

Your masthead has to be big and bold. It has to be more than just a slab of text. Most newspapers and magazines go to a lot of trouble to produce some striking visual effect to make their masthead stand out. And it has to look distinctly different from the headline which will be placed directly below it.

This is not too much of a problem with a program like Micro Design 2. It is packed with commands that can give you all kinds of graphic effects. Once your headline is on the screen, it is just treated as another piece of graphics to the computer.

You can box it, distort it, add bits, rub bits out and put patterns round it. In fact hours of innocent fun can be had messing about with your masthead.

But this still leaves the problem of making the text big enough to make a proper impression at the top of the page.

Big problems

Admittedly the program does come with a choice of 15 different type faces and some of the most popular fonts, such as Helvetica and Times, come in four of five different sizes. As well as this, Creative Technology have brought out three extra discs, packed with other fonts and type sizes.

But even with the full choice of fonts there are no loadable fonts above 33 point, regarded by newspapers and magazines as really only big enough for strap lines (the subsidiary headings you run under the big text).

There is, of course, the ability in MicroDesign 2 to increase the size of any font. While using the WRITE command you can increase or decrease the height and width of the letters.

But this again can cause problems. Each of the letters in a font is made up of a series of dots. Even the biggest fonts are made up on grids only 30 dots by 60. If you look at a letter such as R in Zoom mode you can immediately see potential problems.

The straight line on the left is no problem. But the curved upper part of the letter shows the distinctive 'stepping' caused by the attempt to create a curved line with a series of square dots. And the diagonally sloping leg ends up looking more like a saw than a straight edge.

The letter prints out without any problem in a small size. But if you double the size of this letter you simply accentuate these slight flaws until they are really obvious.

Also, unless you get the relationship between the height and width just right, you can often get very strange distortions of the letters, that could result in your readers immediately rushing off to the optician.

Big Fonts

Some big fonts are provided on the extra discs but not these are not in the same format as the normal loadable fonts. They come in AREA files, filling more than half a page with all the letters (in capitals and lower case), numbers and punctuation marks.

. Using them is time-consuming. But it is also well worthwhile if you want to produce a really professional page.

You cannot load the font as you would the smaller sizes as it would be just too big to fit in the available space in working memory.

Instead you have to create a series of .CUT files, containing each letter you require. The convention is to save a capital A under the title AA.CUT and the lower case a under A.CUT. Then by loading each letter in turn, using

LoadCUT and lining it up carefully with the other letters, you can then produce large text.

If you are really keen you could do this with every letter in the alphabet. By saving different fonts in different user groups (you press [ALT] and [U] to change user groups in SaveCUT or LoadCUT), you could keep several big fonts on one disc.

In case you weren't already aware of the fact, a PCW disc is divided up into 15 different user groups. The first eight groups are the same as the eight columns shown in LocoScript. Normally when you load a disc it is in user group 0. If you call up a directory, it will only show you the files stored in that group.

In MicroDesign 2, you can move from one user group to another by pressing [ALT] and [U]. This way, for instance, you can keep files with the same name on the same disc.

If you have saved a text file in LocoScript in any column other than one at the far left (Group 0), you will have to look through the various user groups to find it.

The lazy way to do it, by the way, is to load the AREA file in the bottom of the page and then use BLOCK to copy each letter in turn into the right place, using STORE 1-4. Fit the adjustable box tightly round the chosen letter and choose the STORE 1-4 option. Then press a number between one and four.

Move to the part of the screen where you want your headline and press the number that you stored the letter under. A box will appear which you can place in the normal way. Press [ENTER] and the letter will appear.

The Zoom Option

But even if you don't want to invest in these big fonts, you can still hit the big headlines with a lot of patience and the trusty Zoom facility.

You simply blow up your letters by increasing the size in the Font Scaling menu or even rescaling the text using the BLOCK command and then smooth off the edges using ZOOM.

ZOOM blows up small parts of the screen to a size where you can work in tiny detail, switching individual pixels on and off.

If you do use this option, however, it would be wise to choose a short title for your newsletter or journal. To smooth the edges off The Stone AgeBasket Weaver's Chronicle would take a very long file.









1 Considering the masthead

2 Selecting a font

3 Producing samples of fonts



So here you are faced with creating a new masthead for your newsletter Hard Times. We would have called it Hard News but as every journalist knows it is a lot easier to find Hard Times than Hard News.

Obviously you want the font you use to be big enough to command respect at the top of the page. Frankly 33 point is not good enough.

At the same time readability is not of vital importance. There are only going to be a couple of words in the title and, if you create a memorable enough masthead, these don't even need to be readable. This is one time when you can use the more fanciful type faces without worrying too much.

Having said that, you may not want to choose too ornate a type face as this will cause more problems when you reach the stage of having to clean up the edges in the bigger sizes.

The first thing to do is to pick a font that you like. Go through the likely fonts you have available and print out the title of your newsletter in each, to see what it looks like.

In Layout press [D], move the box to the top left hand corner of the main screen and press [RETURN]. You will find yourself in the Design Section working in the top left hand corner, a very good place to start.

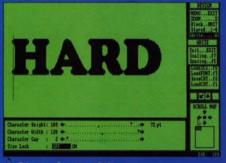
Press [f3] and the program will offer to load all the font files (.MDF files) on the drive you are logged on to. If your font disc is in drive A: press [ALT] and [V] until the bottom box reads LOAD FONT A:*.MDF. Then press [RETURN] and a list of the available fonts will appear. This time we chose BOLDEN33.MDF from the Extra Fonts Disc 2,([RELAY] and the cursor keys until the highlight box is on the correct name and press [RETURN]).

Hit [W] for WRITE and you can see what it looks like. But just as interesting for this exercise is seeing what it looks like several times bigger than it should be.

One important point to remember is that a big font will always look better if you keep it in proportion. You will see a subsidiary menu with the option Scaling...[f7].

This brings up a couple of scales, in the bottom window, governing the height and the width of the letters. By clicking on the right hand arrow of the top scale you can see the height of the font increasing. The idea is to keep everything in proportion.

The easiest way to do this is to double or treble the figures shown. In this case the height was 54 and the width 60. Push these up to 108 for the height and 120 for the width. This way, the letters will not end up looking distorted.



4 Choosing a title

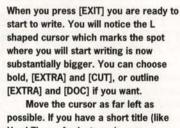
40 April 91



5 Tidying the edges



6 The pixel question



Hard Times, for instance) you are fortunate. Type in the words HARD or TIMES and they fit quite easily on to the **DESIGN** screen.

This means you can save each word as a .CUT file - a file with far more detail than the AREA file. But it does have the limitation that you can only save the area that fits into the Design window.

If you have a title that is too big to fit on the screen at one go you may have to save it in several .CUT files and carefully line them up. Either that, or you could think of a shorter one!

It is a good idea to start tidying up the edges. If, later, you want to increase the size of the text again, you will have to repeat the process. But that is much easier than trying to, say, tidy up a letter that has been increased to four times its normal size.

Already you will see the effects of stepping, especially on the diagonal lines of the capital H. Press [Z] for ZOOM. A box will appear on screen which you can move to the part of the word that needs the most attention.

Press [RETURN] and the chosen area will be blown up to show every pixel, accentuating even further the stepping effect. The idea is to smooth out these 'steps' either by trimming off pixels or by filling in the gaps.

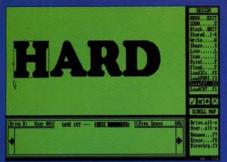
This is easiest where the slope or the curve is fairly regular, although in places it needs a reasonable amount of plain good judgement.

You now have to decide whether you think you should switch pixels on or off. If you chose the black box in the EXTRA Menu [EXTRA] and [RELAY] the downward cursor, the pixels are turned on. The white box [EXTRA] and the downward cursor key, means that the pixels are turned off.

This time we largely switched them on although, again it is largely a matter of judgement. You move the cursor to the pixel you want to change and click with the left hand mouse key or the space bar. If you make a mistake you can go back later and switch the pixel off later.

Keep an eye on the top box on the right hand part of the screen. This shows the area of the screen you are working on at normal size.

This will give you the best idea of how you are doing. When you are completely happy with it press [EXIT] and the screen will be changed.



7 Using SaveCUT files 8 Using the font



9 Making improvements

Anyone enthusiastic enough to carry out this tortuous process for every letter of the alphabet, can save having to buy extra font discs with the big fonts.

This would involve blowing up each letter of a font, smoothing off the edges and saving it using SaveCUT. To do this, press [f2] and fit the adjustable box as closely as possible round the letter.

To do this you click the right hand button on the mouse ([EXCH] for keyboard users) to move the crosshair cursor to the top, right hand corner and the bottom left. Then you can drag each corner until the box is almost touching the edges of the letter.

It is important that you save each file with a consistent margin round each letter. Then press [RETURN] and enter the appropriate name – AA.CUT for a capital 'A', BB.CUT for 'B' and so on. Lower case letters would be saved as A.CUT for 'a'.

Once you have done this you can, of course, use this font any time you want. Use a line to help you get the letters straight – LINE command and choose the dotted line option from the Extra Menu ([EXTRA] and [WORD])

②图】31月1四个型型次

Pick the right angle icon in the second row ([EXTRA] and [DOC], for horizontal or vertical lines only. Draw a vertical line across the screen.

Press [f1] for LoadCUT, backspace delete to take out the asterisk and enter HH or whatever the suitable letter is. After you press [RETURN], line the box up with the dotted line and press [RETURN].

Load each letter in turn. If you get off line move the letter with Copy ([BLOCK] and [f3], once you have adjusted the box). When you have finished take out any of the dotted line with [P] for Paint and the white box, ([EXTRA] and the downward cursor key)

Now is the time to start messing about, trying to make the masthead look more interesting. With the word HARD in the centre of the screen press [P] for Paint and choose a big square brush ([RELAY] and the cursor keys).

Click on the pattern box in the bottom line of the Extra Menu ([EXTRA] and the downward cursor key) and the Icon screen will appear. Click on Set 1 ([EXTRA] and [f1]) and the selection of patterns will be loaded.

Pick the brick wall pattern ([RELAY] and the cursor keys) and transparent ink ([EXTRA] and [COPY]). Then paint over the whole area of the word HARD, and everywhere you paint will be filled with a fascinating brick pattern. Make sure that the pattern is solid over the whole area and extending about an inch all round. When you are sure that you have finished, press [EXIT].



10 Tidying up the pattern



11 Deciding layout



12 Saving the image

Now to tidy up the edges of the brick wall. If you have a steady hand and a nerve of steel, use Paint [P] with white ink ([EXTRA] and the downward cursor key] to paint out any of the rough edges. Don't worry if you rub out too much. We'll get to that later.

Then you can use ZOOM to get all the fiddly bits. This time you will mainly be working with white ink (switching the pixels off – [EXTRA] and the downward cursor key.)

To make things look really interesting you can wipe out the lines round some of the bricks to give the impression of bricks that have been knocked out of the wall. Once you start playing around like this, you'll discover hours of fun!

When you are finished you can save your newly embellished word using the SaveCUT command and then carry out the same tortuous, but nonetheless enjoyable, process for the next word – ours being TIMES.

You can use these files to create your masthead in minutes, using LoadCUT ([f1]). One advantage is that you could use the words side by side or banked on top of each other depending on the design of your page.

But if you were feeling really keen you could actually double the size of these .CUT files again.

This time you work in the Layout section. Hit [f1] once for LoadAREA and then again to change the type of file you are looking for. You will see a wide range of file types, including one for .CUT files in the middle column.

Move the highlight box on to that ([5]) and press [RETURN]. You should see all the .CUT files on your disc, including, hopefully HARD.CUT or whatever you chose to call it.

Choose the x2 option from the Extra Box ([EXTRA] and [UNIT]) place the box and press [RETURN]. Naturally you will have to start all over again in the Design Section using ZOOM to smooth off the edges. But you certainly will have a masthead that is really impressive. When you print this out it is best to use draft mode, as the quality mode seems to be confused by the downward strokes.

Having completed all this hard work you may want to make life as easy as possible by saving the finished masthead as an AREA file. Position the masthead exactly where you want it on the Layout Screen (using BLOCK and COPY) and then press [f2] for SaveAREA. Extend the adjustable box right to the top of the page and as far as you can on both sides.

Press [RETURN] and save it under a suitable file name (such as MAST.MDA). Then, when you start your newsletter next time you just use LoadAREA, move the box as far up as you can and it your masthead is perfectly positioned.





CONDITION OF THE CONDIT

DELIVERY CHARGES: UK Mainland (inclusive); Normal Service H/W £6.00, Normal Service S/W £4.00, Next Day H/W £15.00, Next Day S/W £10.00, Consumables & Light Accessories £1.50, Same Day POA

SHOWROOM HOURS

9.00am - 5.30pm Monday to Saturday Telesales 9.00am - 5.00pm Mon -Fri ALL PRICES EXCLUDE VAT

1991 RSC's 10th Anniversary

We would like to thank all our customers for their continued support over the last 10 years.



AMSTRAD PCW RANGE

PCW 8256 - 256k with monitor, single disc drive, keyboard and dot matrix printer £269.00 keyboard and dot matrix printer £269.00
PCW 8512 - 512k with green monitor, dual disc drives, keyboard & dot matrix printer £399.00 8256/8512 With free maintenance kit & margin maker PCW 9512 - 512k with white monitor, single disc drive, keyboard, daisy wheel printer, Locoscript, Locospell & Locomail software £419.00 Free maintenance kit & printer stand



CALL FOR FURTHER INFORMATION AND SPECIAL CORPORATE OFFERS (0923) 243301

SCA RAMPACKS

Compatible with all PCWs 512k 1.5Mb £159.00

768k will upgrade PCW 8256 to a full 1Mb. 1.5Mb allows Locoscript users to use max. 2Mb memory on 8512/9512

PCW DAISYWHEELS (for 9512 only)

Letter Gothic 10/12 Courier 10 Mini Gothic 15 Orator 10 Prestige Elite 12 Prestige Pica 10 Rector 10 Script 12
Thesis PS All at only £4.95
Foreign print wheels available - call for prices **CALL FOR SPECIAL PRICES ON PRINTER PAPER** AND LABELS

ALL PRICES EXCLUDE VAT

£24.00 £52.00 £80.00

£38.00

£18.00

£25.00 £18.00 £9.00

£16.00

£38.00 £26.00 £38.00

£23.00

£145.00

SOFTWARE

ACCOUNTS
Money Manager PCW
Stock Market
SAGE Popular Accounts
SAGE Popular Accounts +
SAGE Popular Invoicing
SAGE Popular Payroll
Personal Tax Planner
WARD RPOCESSING

WORD PROCESSING

Pocket Protext Prospell Tasprint 8000

Taspell 8000 Tasword 8000

Supertype (Digita)
DATABASES

DESKTOP PUBLISHING

vare & interface

Micro Design II

ProScan - Handheld scanner which turns a PC into a DTP tool. Comes with soft-

Masterfile 8000 SAGE Retrieve Datastore Digita VII

ACCESSORIES FOR THE PCW

10 20 30 40 £14.50 £14.00 £13.50 £13.00



Dustcovers 82	56/8512/9512 ((3 piece set)	£8.50
Clearprint main	tenance kit	D. Mariana and A.	£12.00
Margin Maker I	MM2		£5.00
Ribbons	1-5	5-9	10+
8256 Nylon	£3.00	£2.50	£2.00
Multistrike	£3.50	£3.00	£2.75
9512 Nylon	£2.25	£2.00	£1.75
Multistrike	£3.00	£2.50	£2.00
Colour ribbon	s also availa	ble - call for	r details

PCW DISK STORAGE



BOOKS (No VAT)

15 hour word processing Amstrad PCW	£6.95
Desktop publishing Amstrad PCW	£9.95
Exploiting the Amstrad PCW 9512	£14.95
Mallard Basic PCW Introduction & referen	nce £9.95
Ops Guide Amstrad CPC/PCW 2nd ed.	£17.50
Protext PCW users guide	£9.95
Using the Amstrad PCW 9512	£9.95

PCW ADD-ONS

FD7 PCW Enternal 5.25" drive	£115.00
PCW8256/8512 Memory Upgrade	£POA
Corporate PCW Printer/Power Extension	
8256/8512	£11.00
9512 Printer Extension	£9.00

COMMUNICATIONS SAGE Chit Chat Software SAGE Chit Chat Pack

LOCOMOTIVE CORNER Locoscript II Locospell II

Locospell II
Locofont 1&2
Printer Support Pack
Locoscript II/Spell II
Locofile 8256/8512
Locofile 9512

Locoscript II/Locofile

Locoscript & Locolink
PCW EDUCATIONAL

Fun School 3 5-7 years Fun School over 7 years Fun School under 5 years Better Maths Better Spelling Maths Mania

Biology 12-16yrs Chemistry 12-16yrs Physics 12-16yrs

Locofile/mail

Locoscript PC

Locolink



TEONICHE PCW102 KEYBOARD

A high quality product from Teqniche, 102 keys instead of 82+. Separate cursor pad and function keys for software. Tactile switches, easy to use, ideal for touch typists. only £79.00

FURNITURE

In any computerised situation, it is important to have the necessary furniture to maintain productivity. Corporate T-2001Workstation - grey £66.00 Corporate T-302X Low Back Gas Strut Chair £45.00



CALL (0923) 243301 FOR THE LATEST CORPORATE FURNITURE RANGE

COPY HOLDERS



Copy Holder 132 column with clamp Copy Holder L1 Clamp on Copy Holder L2 Desk Top Copy Holder with Light

£10.00 £10.00

PRINTER STANDS



Printer Support (any size) YU18 Wire Printer Stand (80 Column) Printer Stand (80 Column) Printer Stand (132 Column)

£8.00 £6.00 £19.50 £23.50

DOT MATRIX PRINTERS

You can use standard printers with your PCW, by using the Corporate RS232/Centronics Interface to connect 8256/8512 & printer, 9512 & Communica-tions peripherals. Corporate Special offer £45.00 Corporate CA4 Cable (Interface to Parallel) £8.00 **EPSON**

LX400 9 PIN 80 COL 180 CPS 30 NLQ £119.00 LX850 9 PIN 80 COL 200 CPS 30 NLQ FX1050 9 PIN 132 COL 264 CPS 54 LQ LQ400 24 PIN 80 COL 180 CPS 60 LQ £179.00 £369.00 £179.00 LQ550 24 PIN 80 COL 180 CPS 60 LQ LQ1050+ 24 PIN 132 COL 264 CPS 88 LQ £519.00 AMSTRAD

LQ5000di 24 PIN 132 COL 288 CPS 98 NLQ £199.00 STAR

LC10 9 PIN 80 COL 130 CPS 30 NLQ £122.00 LC15 9 PIN 132 COL 150 CPS 37 NLQ LC24-15 24 PIN 132 COL 167 CPS 66 NLQ LC200 9PIN (colour) 180 CPS 45NLQ £312.00 £164.00 HEWLETT PACKARD LASER PRINTER

Deskjet 500 16k memory, 300 DPI £372.0 NEC - PANASONIC - IBM ALSO AVAILABLE £372.00



Junior Playtime 4-8yrs Telephone: (0923) 243301

Stop Press Stop Press & AMX Mouse GAMES

Brian Clough's Football Clock Chess

Tomanawk
Tank Attack
Colossus 4 Bridge
Bridge Player 2000
GRAPHICS
Masterpack (Pack & Scan)
Masterscan

Classic Games 4

Scrabble Deluxe Jinxter

INTEGRATED

lankey Crash Course lankey Two Fingers UTILITIES

Mass Easy Labeller

Tasman Ťas-Sign PROGRAM DEVELOPMENT

Supercalc II Cracker II

Rotate

Tomahawk

Fax: (0923) 37946



£189.00

£19.50 £18.00

£18.00 £21.50 £21.50 £25.50 £23.50 £23.50 £33.00 £30.00 £74.00

£19.00

£15.00

£15.00 £15.00 £15.00 £10.00 £10.00 £14.00

£14.00 £14.00 £8.00



£8.00 £11.00 £12.00

£12.00 £15.00 £11.00

£12.00

£12.00

£40.00

£29.00

£16.00

£16.00

£18.00 £20.00

Perfect Figures

The spreadsheet was the first computer program which really made a difference to the home user. Tim Smith looks at how one could make a difference to you

f you ever find yourself in the unfortunate position of being stuck in a room full of computer historians, and they are a growing breed, sooner or later they will begin raving about the spreadsheet. The reason for this is that this piece of software had such a massive effect on the business, and then home user since. Why is this? Simple. The spreadsheet actually does everything it promises. It fulfils all of the ideals of a computer program which are as follows:

- 1) A program should make the user's life easier.
- 2) A program should be easy to use.3) If a pen and paper can do the job
- better then you don't need the computer.

A decently written spreadsheet, like the three we are going to look at here, will achieve all of this. Basically, a spreadsheet is a calculator, planner and report-writer in one package. It takes all the donkey work in calculating figures away from you, the user. All that you have to do is define what you want worked out, and the spreadsheet sees to all the fiddly bits.

A spreadsheet is an electronic work place which appears on the screen of your PCW as a grid made up of rows and columns. Into the rows and columns you enter figures and the text which explains what these figures are. You can also enter calculations which is the engine or main point of the spreadsheet.

It is very much like having a huge ledger book which does all the working out for you. Although widely used in big business where impressive colours and graphics are utilised to give reports, the spreadsheet is also useful to the home user and small business person. The reason for its usefulness, aside from the three points mentioned above, is that the hard work is taken from you. Think how boring it is to balance a household budget every week when you know that the calculations, and most of the figures are always going to be the same. You are always going to have to enter things like the newspaper bill, the HP payments, the quarterly bills. Tedious. With spreadsheets you only need enter information like this once, at the beginning of the year.

Secondly, in the manual budget, you have to do the same adding up, subtraction, division and multiplication every week. For example, how much do you have left once you have paid the milk, or the interest on your savings has been paid? Well, with a spreadsheet you simply enter the calculation once, again at the start of the budgeting period, and it will automatically update itself whenever you tell it to.

It achieves this not by looking at the numbers, but rather by looking at the area on the sheet where you have placed the numbers. For example, if you always put income in the area of the sheet referenced by Row A and Column 2 (this is known as cell A2) and you always but the milk bill in cell B4, you can enter the following - A2-B4, in another cell to find out how much you have to spend after paying for the milk.

So, if one week you get a tax rebate, or you have cancelled the milk for two days, you simply enter the new figures and your spreadsheet carries out the same calculations.

This saves you time, gets around the possibility that you might have carried out a wrong calculation, and takes the labour out of a boring job. When this theory is applied to a business, or more complex calculations, the savings in time and labour become immense.

Hints & Tips

LOCKING UP

Now here's a useful tip. Always lock important areas of information, or cells as they are known. Locking a cell which carries constant information such as text means that you cannot accidently change it.

HANDY HARRY

If your spreadsheet is big enough, try to use the row letters as indications of the information you are entering: F for finance, I for interest payments and so on. You do not have to see the whole sheet on the page for it to do its work, so even if you have used Row P for payments but are working on row A any changes will be made throughout the

FORMULA ONE

Always, always check that your formula actually works properly. This is the one thing that the sheet cannot do for you, and it is a complete pain to discover after a few weeks that you have been working along the wrong lines. Remember that one wrong formula can effect the rest of the sheet. Frankly this is the only time when you might need a pen and paper. Oh, and watch out, creating new formula can become an addictive hobby - as many American business people will tell you!

SUPERCALC2 £49.95 ● AMSOFT/SORCIM (091 567 3395) ● AII PCWs

One of the most comforting things about SuperCalc is the manual, which is excellently written. It also comes with a tutorial section which leads you through the basics of terminology and setting up a sheet with the minimum of fuss. Add to this the fact that the program will baldly refuse to load unless its Help file is present and you have a very user-friendly package indeed.

Unlike Cracker Turbo for example, which needs the user to build up the basic grid, the first screen you see in SuperCalc is ready for work and the entry of text and figures.

Entering information takes a little time to get used to at first as you have to remember to press the [/] key before telling the program which type of information or command you would like to enter.

Everything, except the look of the printed output which is a little dowdy, can be modified by the user. This means that that the widths of the cells can be changed, text can be justified and you can tell the program whether you wish it to show formula or the results of the formula. This last element is useful



Supercalc is ready to use as soon as it appears on the screen. Simply fill in your figures and formulae

when editing your sheet.

A very handy utility which comes as an added extra to SuperCalc is one called SDI.COM. This program allows you to convert your saved spreadsheets into ASCII format.

These ASCII files can then be exported to LocoScript, for example, for general tidying up if you wish to provide a more visually impressive printout of your figures.

SuperCalc also doubles as a database. You achieve this with educated use of its Sort command, which, in itself, is very easy to use. For example, you might be a treasurer for a club and have to

keep track of subs payments. You enter the names of members in order, but of course new members join throughout the year. Using 'Sort' means that you can enter a new name wherever you want on the sheet, and SuperCalc will put them into the correct order.

SuperCalc is without doubt one of the best PCW programs, let alone best spreadsheets. Unhappily, with the recent closure of Amsoft by Amstrad, it may well be very difficult to get hold of directly. Keep your eyes out in the small ads for copies - and of course, check the mail order advertisements in 8000 Plus, where it is still widely available.

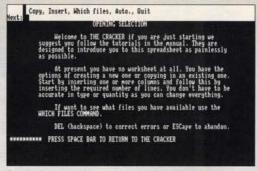
CRACKER

£49.95 ● Newstar Software (0245) 265017 ● All PCWs

Cracker will provide a bit of shock, and some initially dull but useful work, for the new user because it comes with no built-in working sheet. You have to build this one up from scratch. What this means is that you are not wasting valuable memory or disc space by making use of extraneous cells. If you wish to carry out limited calculations which only require ten cells, then that's the number you build in to your working sheet. If you are carrying out complex work, you have the option of customising the sheet exactly to

your requirements from the start. This has the added bonus of putting you firmly in the driving seat - because you built the sheet from the beginning, you actually feel that there is nothing hidden from you.

As regular 8000 Plus readers will know, the Cracker manual is about as easy to use as a video recorder is to program - you always end up with the snooker even if you wanted to record Mahler's 2nd or Gone with the Wind! The best advice here is to read the recent 8000 Plus tutorial series, which began in our August 1990 issue, and finished in February 1991.



Cracker is a powerful system but rather difficult to use This "help" screen actually refers you back to the manual

However, once you have got to grips with basic usage, Cracker is the strongest PCW spreadsheet around. If offers a wide variety of functions such as statistical, scientific and financial calculations. And of course it comes with the much lauded graphic capability. After some work, this will enable you to produce flow charts, pie charts and other graphical illustrations of your spreadsheet findings. Whether this is of any use to the home user is debatable. It is certain however, to be an immense boon to the business user who has to make impressive reports or present complex information in a way which will retain the attention of a captive audience!

In terms of functions, and aside from the graphic ability, there is little to separate Cracker from SuperCalc, a statement which is no disrespect to either. Both programs have 'Sort' routines, are definable, and once you have got over the initial learning problems which come with seeing numbers as totally manipulable, there would appear to be little to separate them. However Cracker is constantly being updated by Newstar and is easier to track down than SuperCalc. Cracker is recommended to the PCW-owning business user rather than to someone who merely needs to keep track of personal or club budgets.

MINI OFFICE PROFESSIONAL

£29.95 ● Database Software (0625) 878888 ● All PCWs

The Mini Office spreadsheet is part of what is known as an integrated package, which comprises a suite of different programs. This means that any data from the spreadsheet module can be exported to, say, the word processor or even communications side. It has previously suffered, however, because of a poor history of user support.

As a basic spreadsheet, the Mini Office module serves its purpose but comes without all the bells and whistles you might expect from a dedicated spreadsheet.

For example there is no ability to create or handle tables with the program, nor can you carry out statistical calculations which are of immense use to business people needing to make long term projections. The other point to bear in mind is that it only offers a maximum working area of 100 rows by 100 columns. SuperCalc has 255 by 63, and Cracker



Spreadsheets don't come much clearer than this. Here Mini Office lets you change your spreadsheet via a simple menu

provides a possible 255 by 52. Now for the average home user, this is no problem at all, but for business or scientific usage it could pose a bit of a dilemma.

With all that aside, entering data into Mini Office's spreadsheet module could not really be any easier. If you enter a number then the program assumes that this is to be calculated at some point. Entering a word is treated as text. Now this might sound obvious, but with the other two programs we have mentioned, you have to inform the spreadsheet of what type of data you intend to enter.

To be honest, Mini Office offers no surprises or added bonuses at all. If you want a decent program which can be used alongside the many other functions in the

bundle - even if this does mean having to quit from your work at the sheet in order to carry out a Sort routine (only available in the Database module of Mini Office) then it is the one for you. Recommended for home users and those people with limited but very clear cut needs for automatic calculations. Not, perhaps, ideal for the business user.

Jargon Busted!

As we all know, computers and computer programs give rise to jargon, waffle and what seems to be secret code. It is our job to clear up the mysteries and make the program that bit easier to read. Spreadsheeting brings with it a few terms and phrases which you will need to get to grips with. We will now explain the most important of these.

CELL: A spreadsheet appears on your screen as a grid made up of rows and columns. It is where these rows and columns meet that all the work is done. This area is called a cell.

Cells are defined to the user by a reference number which derives from the letter and the number of the intersection of a row (we shall call it row A) and a column (column 3); this cell would be called A3. Spreadsheets such as SuperCalc and Cracker can have up to 255 rows and 50 or 60 columns.

ENTRY: In each of the cells you can enter

the following: text, figures or formulae (we will get around to formulae presently). This, as you can see, is fairly basic stuff. If you wish to enter a title into a spreadsheet, you must tell it that you are entering text. Most spreadsheets ask you to type in a key combination to let it know which of the three possible entry types you intend to make, and will throw out an error message if you fail to do so. FORMULA: Basically a sum or calculation. It is the heart of the program. It is the concept which normally frightens most people out of using spreadsheets, and is the basic term behind spreadsheeting. As we have seen, cells are referenced by a number such as A3.

You could spend your time entering numbers into each cell and carrying out calculations by yourself, but this defies the entire use of the program. Instead you enter a formula to add, multiply, subtract or divide any number of cells with each

other. In normal calculations, even those carried out with a calculator, there are a number of constants and random numbers to be entered.

For example, to find out how long ago an event took place, the constant figure is 1991 (we'll put this into cell A1). You can enter this into a cell and you never need to change it. However, you can use another cell for the random figure - the year in which the event took place, say 1966 (we will call this cell B1). Now in cell C4 we place the following formula, A1-B1. What will be shown in cell C4 from now on is not the formula (A1-B1) but the figure which this formula throws out. This means you can change the random number, the year in which an event took place, as many times as you want, and the spreadsheet will carry out the new calculation automatically. So, as you can see, the formula is the basic engine of the spreadsheet.

NO QUIBBLE **GUARANTEE**

IF ANY ITEM PROVES **FAULTY WITHIN 12** MONTHS OF PURCHASE WE WILL REPLACE IT OR REFUND YOUR MONEY IN FULL.

PRICES INCLUDE V.A.T.

Don't risk losing your valuable data

- Genuine Amsoft
- Guaranteed Quality and Reliability
- Buy from the UK's LARGEST SUPPLIER

PACK OF

FIVE

PACK OF TEN

COMPACT FLOPPY DISC **BULK BUYERS SPECIAL PRICES** 50 E87.47 DISKS £169.97

PCW PRINTER RIBBONS

SPECIAL OFFER BUY 10 - GET 1 FREE

GENUINE AMSTRAD

	FABRIC	CARBON MULTISTRIKE
PCW8	€4.80	€4.80
PCW9	-	٤2.99

MINIMUM ORDER – 2 RIBBONS UNLESS ORDERED WITH OTHER ITEMS.

QUALITY COMPATIBLES

	FABRIC	CARBON MULTISTRIKE
PCW8	€2.99	€2.99
PCW9	£2.29	€2.29

MINIMUM ORDER - 5 RIBBONS UNLESS ORDERED WITH OTHER ITEMS.

CLEANING KIT

CLEARHEAD FOR 3" DRIVES

- Safer data storage
- Easy to use Prolongs disk and drive life

DUST COVERS

HIGHEST QUALITY 3 PIECE **PCW DUST COVERS**

£ 7.95 PCW 8 SERIES.

PCW 9 SERIES

PCW 9 SERIES

€ 8.95 SHEET FEEDER VERSION.

ISTING PA

11" x 91/2" 60gsm 1000 SHEETS

£7.95

2000 SHEETS

(PLEASE ADD £4.00 TOWARDS DELIVERY ON ORDERS FOR PAPER UNLESS YOU ORDER WITH OTHER ITEMS, THEN DELIVERY IS £1.50

⊗TDK DISKS

Best quality disks in the world for 3.5" and 5.25" drives.

		4111001		
TDK 5.25"	DS	2	6	.79
TDK 5.25"	HD	£ 4	1	.39
TDK 3.25"	DS	٤٠	11	.39
TDK 5 25"	HD	2 2	1	74

All prices are per box of 10 disks.

AMSTRAD PCW 9 SERIES

CHOOSE FROM THESE 9 DIFFERENT PRINTWHEELS LETTER GOTHIC 10/12 MINI GOTHIC 15 PRESTIGE ELITE 12
PRESTIGE FICA 10
RECTA 10
SCRIPT 12
THESIS PS COURIER 10 £3.50

FOREIGN PRINTWHEELS AVAILABLE. CALL FOR PRICES AND DELIVERY.

SHEET FEEDER

AMSTRAD AUTOMATIC SHEET FEEDER FOR PCW 9512 - SAVES TIME AND MONEY SPECIAL

PRICE

PCW INTERFACE

Genuine Amstrad RS232/ Centronics Interface, Allows you to connect a PCW8 series or PCW9 series to any printer or modem (cables extra). SPECIAL PRICE

AMS 30L STORAGE BOX

- High impact resistant, antistatic plastic construction with inset smoked lid panels.
- Hinged lid with key operated
- security lock. Stepped base for easy disk selection with a capacity for fifteen 3" disks either cased or uncased.
 Can accommodate up to thirty 3"
 uncased disks.
- Redesigned throughout and now attractively finished in grey

ONLY

SELECTED PCW

INTEGRATED

MINI OFFICE PROFESSIONAL....£26.50

D.T.P.

MICRO DESIGN 2 ...

CRASH COURSE TYPING...... £17.95 ULTIMATE SUMS £10.95 ULTIMATE QUIZ. £10.95 JUNIOR PLAYTIME £12.95

LEISURE

TIME AND MAGIK	£10.95
TOMAHAWK	£13.95
COLOSSUS CHESS 4	£12.95
CLASSIC GAMES 4	£13.50
SCAPEGHOST	£13.50
HOME ENTERTAIMENT CENTRE.	£14.95
WORLD OF SUCCED	C42 0E

WORD PROCESSING

PROTEXT	£39.95
LOCOSCRIPT 2	£26.95
LOCOSPELL	£22.95
LOCOMAIL	£26.95
LOCOFONT (Sets 1 & 2)	£26.95
LOCOSCRIPT 2/LOCOSPELL	£35.95
LOCOFILE	£30.95

SPREADSHEETS

CRACKER II TURBO ... £40.95

DATABASES

MASTERFIELD 8000. £32.95 LOCOFILE £30.95

ACCOUNTS

SAGE POPULAR ACCOUNTS... £81.95 MONEY MANAGER £33.95





DELIVERY

ON ALL ORDERS OVER £15 (EXCEPT PAPER) OR

ON ORDERS BELOW £15 PLEASE ADD £1.50 **TOWARDS POSTAGE** AND PACKING

FOR ONLY £7.95. YOUR ORDER CAN BE DELIVERED TO YOU NEXT WEEK DAY GUARANTEED BEFORE 1.00pm (ORDER MUST BE PLACED BEFORE 3.30PM)

ADOS UP TO ABETTER

COMPLIMART LIMITED FREEPOST (80+) JUBILEE DRIVE, LOUGHBOROUGH, LEICS. LETT OBR TEL: 0509 610444 FAX: 0509 610235

Life in the Fast Lane

The diminutive Canon BJ-10e Bubblejet printer is a punchy addition to the range of PCW compatible printers on the market. Alec Rae tries it for size



here are various stages involved in getting to know the BJ-10e – the new bubble-jet printer from Canon. First there is surprise. Can it really be as small as that? Then there is delight. Can something as small as that really produce such impressive print? And then there is frustration. Why couldn't Canon have sorted out the last few details to make it even more useful to the PCW user?

Admittedly Canon were probably not thinking of the PCW user when they launched this machine. It is significant that Amstrad are giving a BJ-10e free with their new laptop computer. There is no doubting that the machine is ideal for someone on the move. It is not over difficult to carry about at only 1.8 kilos (that's about four pounds) and you can even get an optional, internal NiCd battery pack to make it really portable.

But it also seems ideal for the PCW user who is looking for good quality print. A bubblejet printer is a strange hybrid, part of the inkjet genus, where the marks on the page are made by firing tiny ink drops at the paper through thin nozzles. The ink is heated in the nozzles, making it bubble (hence bubblejet), and also making it dry on the page instantaneously.

This means that it can produce a quality of printed text as good as, if not

better than, the average daisy wheel printer. And yet it can still produce good quality graphics.

Small is beautiful

In effect, a bubble jet can produce printing of the quality of a laser printer without the bulk. As many PCW users work in cramped conditions, this might prove the ideal solution to many problems. It was one of the great advantages of the PCW8000 series when it was first made available that you could fit the computer and the printer into the tiniest of corners.

But it did mean that you had to accept the standard of print that the internal printer gave you. Virtually any other printer was substantially bigger and laser printers were of an almost unfeasible size for anyone's desktop. Now, at a stroke, all these problems have been solved. The BJ-10e is tiny. At 310 mm by 216mm and only 48mm thick, it is certainly no bigger than the average laptop computer and could fit on any desk. For our reader that still doesn't speak metric that is 12 inches by 8.5 inches and less than two inches thick. You have to admit – that is small.

But it's even better than that. You can flip a little stand on the bottom of the printer and balance it on its end so that it takes up no more than a tiny strip of desk space.

And yet the print that comes out the machine is of such a high standard, that even if you are not interested in saving space you could consider the BJ-10e a good investment anyway.

Cut and tried

Another big advantage, in terms of output, is the optional cut paper feeder. A cut paper feeder is an attachment that loads single sheets of paper into the printer one at a time, automatically.

The advantage of being able to load headed paper or to produce long documents on ordinary white bond instead of scrappy continuous paper makes a great difference to all your correspondence.

But this one is worth the money solely because of its ingenuity. It clips on to the base of the printer – at least what would be the base if it was sitting normally. But because of the BJ-10e's ability to sit on its end, the paper feeder sits upright as well.

You drop the paper in a suitably placed slot on the top, press a button and part of the feeder tilts to hold the paper securely in the right place to feed into the printer. It is a very neat and sensible solution - but do look at the diagram in the feeder manual when you fit it. It is such an unlikely idea you would never work out how it is attached without clear instructions.

The other way to look at it is, perhaps, that loading paper in the BJ10e without the cut paper feeder is a bit of a pain. Being small it does not have all the paper guides and fancy paraphernalia of some of its bigger cousins. As a result, getting a piece of paper round the roller without crushing it beyond recognition is a bit of a feat for the beginner.

Like all these things, it would be easy once you got the hang of it. But the cut paper feeder removes the need for this learning curve and presents paper in perfect condition in exactly the right spot each time.

Speed trials

Still on the advantages the BJ-10e, like virtually every other printer on the face of the earth, is substantially faster than the native PCW printer. The makers claim an operating speed of 83 characters per second, which compares favourably with any dot matrix printer for high quality print. In our trials the most spectacular

Extra, extra!

You should be able to obtain the the B.I-10e's cut sheetfeeder and the replacement cartridges from the shop or dealership where you bought the printer itself. The sheet feeder costs £54.00, and the cartridges are £19.99 each. If you have difficulty in obtaining either of these items, contact Canon at the address and telephone number shown on the opposite page.

46 April 91

example was printing out graphics from the Micro Design 2 DTP package. The bubblejet took nine minutes 22 seconds to print out the example. The internal printer took 22 minutes 29 seconds (and that is a long time to stand with a stop watch in your hand).

In the 8000 Plus highly scientific 1000 word test, the bubblejet took two minutes 22 seconds to complete the printout (it's about two pages of normal text). This compared with a mammoth seven minutes 15 seconds for the internal printer in letter quality mode.

Admittedly draft mode text was marginally faster at one minute 47 seconds. But remember that the Canon was producing high quality text and the PCW printer was not.

But there is an even greater time saving factor than these figures show. These tests were carried out using the cut paper feeder. Once the paper is loaded in the feeder all you do is start the print process in the PCW and the paper is then loaded. To use the internal printer you have to load the paper before the computer will think about printing anything. So really, paper loading time should be added on to the internal printer results. And for the average 8000 Plus reviewer, this could add on anything up to 35 minutes.

One thing about ink jet printers is that they print like a dot matrix – a strip at a time. Laser printers, on the other hand, seem to sit and think about printing for a long time before they start. The BJ-10e may not be substantially quicker than a laser printer but it certainly seems that way.

Save money...not time

Like the PCW internal printer there are two qualities of print. But unlike the PCW printer there is no difference in the time taken to produce those variable print qualities. The difference is in the amount of ink used, a matter which could have some influence on the more cost-conscious user.

Unlike other printers the print head for the bubblejet is contained in a cartridge that also holds the ink. Instead of putting in a new ribbon you fit a brand new cartridge, at the same time renewing the print head.

This obviously makes the cartridges quite expensive. But if you can prolong the life of the cartridge by using less ink it may seem worthwhile. This 'economy mode', as it is called, is still a good quality print, and produces better results than letter quality on the average dot matrix printer.

Softly, softly

The Canon must also be given an extra plus for its quietness. The makers claim that its operation noise level is 45 decibels. That may not mean much to you and I, but if the makers have gone to the trouble of finding that figure out you can assume it's good.

It goes without saying it is quieter than the internal printer (or any dot matrix or daisywheel printer, for that matter). In fact, the loudest noise produced is from the auto-capping, a system used to make sure the ink doesn't dry up and clog the printhead. If the printer has not received data for more than five seconds it 'auto-caps,' in effect putting the printhead away until you need it. In the process it makes a rather disconcerting clunk, all the more worrying to the new user as it happens when you are not expecting it.

At £345, the BJ-10e is reasonably priced, and compares very well with most 24- pin or laser printers.

I want to be an IBM

So what are the problems? A major problem for the PCW user is that the printer seems to have been designed very much with an IBM compatible PC in mind. Most printers offer emulations, a set-up that allows the printer to act exactly like another, more widely used printer. For instance, the PCW internal printer emulates an Epson printer. So the PCW works perfectly with any printer that has an Epson emulation.

Unfortunately the only printers the Canon seems to emulate are IBM Proprinters and IBM Graphics Printers. These are, of course, quite common among IBM compatible PC owners. But you have to look far and wide to get any PCW software that can handle it.

It is not impossible to find.
Certainly later versions of LocoScript 2 with the right printer driver can be used with it. For more details see the 'Driving a Wordprocessor' box below.

Similarly, the latest version of MicroDesign 2 has an option specifically for the Canon bubblejet

Graphic Details

Version 1.23 of Micro Design 2 (check your version by looking at the serial number at the bottom of the screen in the Layout section) has a special printer driver for the BJ-10e. Creative Technology will install the driver free of charge if you have an earlier version of Micro Design. However, you still have to make one little adjustment to make it work. You have to find the DIP switches - the 10 tiny switches at the opposite end from where print head sits. Then you have to set the seventh switch to on (the factory setting is off). If you don't do this you get line after line of code instead of nice pictures.



Printing from Micro Design 2 is possible - as long as you rest the seventh switch



Bubble sum

The Canon B.J-10e costs £345 (excluding VAT) and is available from Canon UK at Manor Road, Wallington, Surrey SM6 0HJ, telephone (081 773 3173). If you are making a telephone enquiry about the printer, you should ask for the Text and **Data Sales** Department. The printer should also be available in any high street office supplies shop, such as Rymans or Dixons.

Driving a word processor

Locomotive are one of the most advanced software houses in the business of writing printer drivers for specific printers. The newest versions of LocoScript 2 are set up to handle all kinds of printers and there are discs full of printer drivers – small files that convert the data in a LocoScript file into a form that a specific printer can understand.

Locomotive can provide a printer driver for an IBM Proprinter that works perfectly well with the Canon. To use the printer you may need to get an update to your version of LocoScript and a copy of the driver.

Using the printer driver is easy. You just need the file IBMPRO.PRI and INSTALL.DRV in the first column (group 0) of your LocoScript start up disc. You can move them there using the Copy function.

Then when you start up the program you will notice the file IBMPRO.PRI is automatically loaded into M drive. If you press [PTR] and [f5] you will also see that you nw have the option of using an IBMPRO printer. Move the cursor on to it and press the [+] key beside the space bar. That will choose the printer as standard.

You can do virtually everything you can do with the internal printer (except italics) although it doesn't seem to let you at features like the double height setting.

If you use the automatic paper feed this can confuse LocoScript a little. As it is used to having paper loaded in the internal printer before it starts it can't work out that the Canon loads the paper after the Print command is given. If this happens use [f1] Actions to abandon the print and start again. It works the second time.

Protext is a bit more of a problem. As yet, there is no PCW printer driver written for the BJ-10e. Arnor say they have been having a lot of enquiries about the machine so there may be one on the way in the future.

We did try it with another Canon driver but it produced more problems than the ordinary PCW printer driver.

The advantage with Protext is its facility to let you write your own print codes in the Setprint section. Even without a printer driver the more adventurous souls can presumably create a reasonable driver for themselves.

Here is one tip, which shows the problems you have to face. When you use the PCW printer driver Protext always puts a mysterious upper case M in the top left hand corner of every document – a bit like Zorro with dyslexia.

Now it seems that when you work with an IBM Proprinter you don't reset the printer like you would the PCW printer. When Protext starts to print the first thing it always does is reset the printer. It sends through this command, the Canon gets confused and sticks an M in the corner instead.

You can get round this by going into Setprint and removing the code for reset (option four) although this is not an ideal solution as you may still have to reset some printer settings.



Printing from Micro Design using the PCW's native dot matrix printer is time- and ink- consuming...



...but using the BJ-10e drastically reduces the delay. As you can see, the result is much clearer as well

The Canon BJ-10e Printer can print

There is doubl characters an

It can print in Pica (10 char And of course in Elite (12 charact It can even print in condensed (17 characters per And how about this for propor

The BJ-10e's 'economy' mode allows you to produce good quality output, and save on ink consumption too...

and it can print in tiny little i

The Canon BJ-10e Printer can print

There is doubl characters an

It can print in Pica (10 cha And of course in Elite (12 charact It can even print in condensed (17 characters pe

And how about this for propo

...while the still speedy High Quality mode demonstrates the bubble jet technique to its very best advantage

Left: Among the extras which the BJ-10e offers is 'double height' text. To select this effect, you need to press the Pitch button three times. The effect can be produced in High Quality or 'economy' mode

AS WELL AS THE NORMAL SORT OF THINGS YOU CAN GET ON A CANON BJ-10e, YOU CAN ALSO GET DOUBLE HEIGHT TEXT.

family which seems to work perfectly once you have made a few minor adjustments to the printer. See the 'Graphic Details' box for the full story.

Apart from this you may have a few problems. You could try virtually any program and you might be lucky, although there are basic differences between the IBM and Epson emulations that make it unlikely that you won't encounter some problems.

Or you might be able to get the software company that wrote your favourite program to provide or write a printer driver for it. On the other hand you might find slight mistakes appearing or, worse still, you might find yourself totally unable to use a program, especially for printing graphics.

The vital information hunt

And, it has to be stated, the manual for the BJ-10e is not much help. Printer manuals, in general, are not usually very lucid tomes. Their authors seem to take a perverse delight in hiding vital information in the most obscure corner of the 14th appendix.

But this manual is better still. It seems to miss out the vital information altogether. It seems that there is also a programmer's manual available with a good deal more information. But unless you are reasonably computer literate, this could be even more confusing than the ordinary manual.

This is a pity, as there are a few details that you really ought to know when trying to get a printer to work. For a start, if you use the standard factory settings you will have great difficulty getting a £ sign to print out. Instead you will find yourself with a #, which is nowhere near as useful.

If you read the manual very carefully you will discover that there are two Code Pages (USA and Multilingual), settings that give you different characters. And in each of these Code Pages there are three character sets.

Now it would appear that to get a £

instead of a # you can use character set two of either of these Code Pages.

And it would also appear that to change to these character sets you can use control codes (messages coming from the PCW) or dip switch settings (tiny little switches you find in all printers to set the defaults). We say "it would appear," for try as we may, we never managed to get a £ sign from this printer except by using the LocoScript printer driver.

This doesn't mean that it's impossible. It obviously isn't. But without a proper printer driver it isn't exactly easy either.

Making your pitch

In fact, setting the printer caused problems all the way through. For a small, quite inexpensive printer the BJ-10e has a reasonable choice of features. It only has one typeface – a perfectly pleasant serifed font.

But you can have this in virtually all the variations you would get from the PCW internal printer. It will give you pitches from five characters per inch (cpi) to 17 characters per inch.

Because of the clarity of its print, it has really readable superscript and subscript text. You can get proportional spacing and it will give you underline and bold, although it has to be admitted that there is not a major difference between ordinary print and bold. It won't give you italics, as there is no italics font in the printer.

The most exotic feature is a doubleheight text which looks quite impressive. And all of these come in economy and high quality standard.

The problem is how to get them. Like most printers you can set the pitch or print settings on the printer itself. But as the BJ-10e is so small there is no room for the usual LCD displays that tell you what the settings are.

Instead you have to press various buttons a set number of times. For instance, to get double high mode you press the Pitch switch three times (after having pressed the ON LINE switch and the PITCH switch together). And to get economy mode you need to press the Economy/HQ button once (if you are in high quality mode, of course).

To get the right pitch you press the Pitch button (suitably enough). The four possible settings (10cpi, 12cpi, 17cpi and proportional) come up in order with each press. So, of course, you have to know what the current setting is. If, for instance, you want 17 cpi you press it twice if you are in 10cpi. If it's proportional that you are after, then you press it three times.

Admittedly it does give a little bleep every time it changes and the bleeps do appear to change in pitch according to what button you are pressing. However, it does also give the impression that you need perfect pitch to set anything complicated. And if you get completely lost, the only thing to do is switch off and start again.

Breaking the control codes

This shouldn't really be too much of a problem. Most people will spend far more time changing print settings from the computer, using control codes.

But here again life was complicated. In the time we had to play with the printer, we had great difficulty getting it to respond to any control codes. The manual was less than helpful. For instance, the much vaunted double height setting is not even mentioned in the list of control codes. We were told that to get it you gave the computer the codes for double width and condensed, although we have to admit that we never got it to work.

These criticisms are made with a heavy heart because the concept of the BJ-10e is very appealing and it has many good points. But unless you are quite computer literate you may well have real problems getting it to work properly. However, if you do manage to fathom the various settings, you will undoubtedly come to regard the BJ-10e as a very valuable printer.

Canon BJ-10e

Pluses

- ▲ Excellent print quality
- ▲ Truly portable and
- space saving.

 ▲ Quiet and fast

Minuses

- ▼ Not supported on the vast majority of PCW software
- ▼ Difficult to set, manually or with control codes
- Documentation is not helpful

Ease of Use 3/5
Documentation 1/5
Features 4/5
Performance 5/5
Value verdict 13/20

NEW!!! PCW 102 keyboard

Tegniche - see review in this issue



102 keys instead of 85. Separate Cursor pad. Function Keys for software. Plus many more features

Now only £79.00

PRINTER RIBBONS 8256/8512 Nylon£2.75 each 8256/8512 Carbon£3.22 each 9512 Nylon£2.20 each

9512 Carbon£2.75 each Min Order Qty 3 pieces (Ribbons only)

5.25 Pace external disk drive. For easy transfer of data between PCW's and PC's. See cover feature. Complete with all necessary cables and software

ONLY £125.00

PCW SOFTWARE

I CW SOLIWAR	d PA
Locoscript 2 inc Spell	.£29.95
LocoMail/LocoFile Bundle	
LocoScript 2	£24.95
LocoMail	£24.95
LocoFile	.£24.95
Contriver Mouse + Interface	£39.95
Mini Office Professional	£24.95
Touch 'n' Go Typing Tutor	£19.95
Sage Popular Accounts	£55.95
Sage Popular Invoicing	£39.95
Sage Popular Payroll	£39.95
Cracker 2 Turbo Spreadsheet	£34.95
Amstrad R232 Interface	£49.95

All Prices INCLUDE VAT & POSTAGE (U.K only)

Please make all cheques payable to: PRM COMMUNICATIONS

17 Staple Tye, Harlow, Essex CM18 7LX

Credit Card Hotline Number: (0279) 422846 VISA

A Small Selection From Our Warehouse

Hardware & Peripherals (Offers While Stocks Last)

We are the only company in the world that stock every print-wheel for the 9512.

And also have the Russia X140 (Artisan 10/12) printwheel ENGLISH WHEELS £4.96 + £1.15 FOREIGN WHEELS £9.41 + £1.15

3.5" Second drive for your PCW In a neat slimline case, takes power from the computer RRP £89.95 WAVE SPECIAL £69.95 + £3.45 P&P

CAMBRIDGE Z88

Ex-demo, working with 3 months warranty ONLY £129.00 + £3.45 p&p

Data transfer kit cable + software for PCW (Req. CPCS8256) £26.21 + £2.30 CPS8256 serial/parallel interface RRP £68.94 special £39.95 + £2.30 p&p

Amsoft disks, box of 10 for only DS for all 3" drives + FREE disk box. If stated. Do You Want To Save Money? + £1.15 P&P

20 100 110111 10 0010 1110		
Then send for our TRADE PRICE LIST. State for which products an	d enclose 3 2	2p Stamps
Ribbon PCW 8256 FNPKT 2		
Ribbon PCW 8256 MSPKT 2	13.98	6.24 E
Ribbon PCW 8256, FN Colours Available in Red, Brown, Blue, Green, Purple	PKT 2 13.32	6.90 E
Ribbon PCW 9512 FNPKT 2	7.70	5.40 E
Ribbon PCW 9512 MS PKT 2	7.70	4.62 E
Blank Disks & Software		
Supercalc 2	69.95	29.95 C
3" Thesaurus Deluxe version 2 (requires LocoFile & LocoScript 2)	19.95	11.97 E
LocoFile, for LocoScript 2Please State 8 or 9 Series	34.95	24.46 D
LocoScript 2	29.95	
LocoScript 2 + LocoSpell 2	39.90	28.33 D

3.50" DS/DD WABASH/VERBATIM BULK + Labels4.25 E Phone for latest lowest ever prices on SAGE Software & Stationery!
Eng. Mainland post & ins: (A) £5.75 (B) £4.60 (C) £3.45 (D) £2.30 (E) £1.15 (F) 58p. (ANC) 3 day £10.35 Next Day £13.80, COD + £2.30, Max UK post chg. £8.05 per 20kg/£500. All prices include VAT. All sales subject to our Trade Terms of Trading. W.A.V.E. (Trade Dept. 8000 9104) Walney Audio Visual Electrical Distribution. 1 Buccleuch Street, Barrow-In-Furness, Cumbria, LA14 1SR.

Tel: 0229-870000 (6 lines) Hours: Mon-Fri 10.00-5.00

A Complete Service in Computers & Software.

Miles Better Software 219/221 Cannock Road, Chadsmoor, Cannock Staffordshire, WS11 2DD

Word Processing		
Protext Office	£27.95	
Locofont Set 2	£13.95	
Locokey	£14.95	
Locoscript 2	£24.00	
Locoscript 2 + Locospell 2	£33.00	
Locospell 2	£18.70	
Locomail 2	£27.00	
Locofont set 1	£17.50	
24 Pin Drivers 8256/8512	£21.00	
24 Pin Drivers 9512	£21.00	
Tasword 8000		
Tasspell 8000	£11.95	
Pocket Protext	£39.95	
Keyboards disk		

Keyboards disk£17.95		
Desktop Publishing	Graphics	
AMX Compatible Mouse	£49.95	
AMX Stop Press	£36.40	
AMX Stop Press + Mouse	£70.00	
Micro Design II	£47.95	
Master Scan	£63.00	
Desktop Publisher	£24.95	
Master Pack	£67.00	

Integrated Packages

Mini Office Professional Plan It Business Controller	£15.00
Hardware	THE PARTY
Star LC-10 Printer	
Star LC-200 Colour Printer	£259.00
Star LC24-200 Printer	£319.00
9512 Cut Sheet Feeder	£30.00
Kempston Mouse in Jeeves	£64.95
Mouse	£44.95

Mouse Mouse in Jeeves	£44.95
Spreadshe	ets
Supercalc 2	£52.00
Cracker	£39.00 £19.95
Database	S
Masterfile 8000	£30.00
Datastore II	£27.00
Locofile 8256/8512	£27.00
Locofile 9512	£27.00
Locofile + Locomail	£46.00

Telephone: (0543) 466577/8/9

free stationery)£32.95
8256/8512£29.00
9512£29.00
30£32.95
80 v.2£32.95
us£16.95
£22.95
us£39.95
£29.95
rnational£64.95
Agenda

1,901,00	
32K Agenda	£115.00
64K Agenda	£130.00
32K Card	£35.00
Parallel Lead	£25.00
Serial Lead	£22.00
ABC Basic	£22.00
English/French	£22.00
Accounti	ng
	All the same of th

Accounting
Vital Income Processor£32.95
Pocket Cash Trader £18.95
Sage Accounts Plus£102.00
Sage Popular Accounts£69.00
Sage invoicing£48.00
Sage Payroll £48.00
Money Manager PCW£34.95
Personal Tax Planner£18.95
Stockmarket 2£29.95
SBA Cash£45.00
Moneyware Accounting Plus, 1+2£225.00
Cash Trader £79.95

GAMES		
Leather Goddesses of Phobos	£19.95	
H/hikers Guide to the Galaxy Corruption	£19.95	
The Times Computer Crossword	£14.95	
Jinxter	£19.95	
Arnhem		
Tank Attack		
Bridge Player 2000	622.05	
The Fourth Protocol	£19.95	
Colossus Bridge 4		
Steve Davis Snooker		
Frank Brunos Boxing		
Colossus Chess 4		
Scrabble De Luxe	£22.95	

Just a selection from our vast range of computer software.

ods sent within 24 hours. All prices include VAT and Delivery

Please make cheques, postal orders payable to:

"Miles Better Software Access/Visa orders please phone for immediate dispatch Visitors Welcome. VISA

Cut Printer NOISE by up to 90%

Noisy Printers are a major source of stress and will significantly reduce the efficiency of you and your colleagues.

AMGARD Acoustic Hood will cut stressful printer noise by up to 90% enabling other tasks and functions to continue during printing.

Not only will you hear the phone ring but you will actually have two-way conversations again!

AMGARD Acoustic Hood features a 'see-through lid' with 'memory hinges' for easy access plus provision for single, continuous and automatic sheet feeders where fitted.

AMGARD Acoustic Hood comes assembled ready to use with a model to suit your printer and at a price that won't make a big noise on your budget, e.g. AMSTRAD PCW9512 £99, with sheet feeder £139

AMGARD Acoustic Hood, the professional solution for all printers. Phone for price and delivery for yours.

Free delivery applies to UK mainland. Prices exclude VAT. ORDERING: CALL our 24-hour Hotline NOW

☎ 0993-883277 **☎**



A FULL BANGE OF COMPUTER FURNITURE & ACCESSORIES IS SHOWN IN OUR CATALOGUE WHICH IS AVAILABLE FREE UPON REQUEST 8000+

All prices are fully Inclusive Improve Your Capacity... Telephone orders welcome

Telephone

RODESIGN

Dept 8 195 MILWARDS HARLOW ESSEX CM19 4SJ

☎ 0279 444313

Genuine branded discs. Guaranteed quality from names you can trust and at special prices. All the discs that we supply are guaranteed.

STOK PINSONE . C-Verbatim **BASF**

DAISY PRINTWHEELS for the PCW9512		
Letter Gothic 10/12		
Mini Gothic 15	Script 12	
Prestige Pica 10	Recta 10	
Prestige Elite 12	Thesis PS	
Courier 10	£5.95 each	

PCW 102 Keyboard. £79.00 Protext W/Processor. £42.95 Flipper2 Plus £2995

	Quantity	5	10	20
AMSOF	T 3" CF2	10.50	19.50	37.50
BRANDE	D 3.5°		11.50	21.50
	D 5.25°			12.50

SCA Recommended by APCW, 8000+ and Locomorive SYSTEMS Software, UK Built, With money-back guarantee. Add extra memory instantly £113.85

SCA 512k Rampac SCA 768k Rampac £136.85 SCA 1.5Mb Rampac £228.85 Interfaces (serial/parallel)

£55.00 SCA Pro interface SCA Pro+ interface £65.00

"The easiest way to upgrade"



Improve Your Image...

HIGH QUALITY CLIP ART for MicroDesign2;-

XMASCLIP £10.00 MUSICAL CLIP

TOOLBOX CLIP £10.00

GIANT FONT DISCS £10.00

A disc full of seasonal MDA and CUT files for MicroDesign2. Make gift tags, place cards, Christmas cards etc. Includes decorative greeting messages, symbols and traditional scenes. Full of sketches and line drawings of musical instruments both traditional and modern. For use with MicroDesign2, Ideal for Music Society newsletters, school projects, or just for furt

High resolution images of all forms of tools including carpentry, plumbing, electrical, decorating, gardening etc. Disc contains MicroDesign2 MDA and .CUT files. Printrout included.

Each one a double density disc containing 71 files. Giant Fonts consist of 6°, high-resolution characters for creating your own borners on continuous pager.

Disc1 - TIMES Disc2 - GUARDIAN Disc3 - OUTRIGGER

Access

Do you require tuition on ProSCAN or MicroDesign2? Be trained in your own home or workplace anywhere in the UK by Rod Patient. Only £80 per day (+ travel)

.....ane of our most experienced users." MicroDesigner3 "...we receive glowing reports." MicroDesigner4 "...modestly priced help." 8000+ July 1990

♦ ♦ All orders are despatched by first class post. ♦



CROSSGRID

Was £14.95 NOW £9.95

Crossgrid without clues. Each absorbing puzzle requires an intriguing combination of lateral thinking and logic. Five levels of difficulty. Also includes CHAIN WORD another absorbing word puzzle, Suitable for teenagers and adults.

Thoroughly recommended" Amstrad PCW Magazine

was £14.95 NOW £9.95

Ten games designed to stimulate and amuse, hours of learning fun. Suitable children aged between four and eight years old. Complete with disk menu. "Junior Playtime is a winner; excellent value for money, high calibre puzzles and appealing to children of all ages," 8000 Plus.

SCHOOLS OUT

was £14.95 NOW £9.95

Five great games - Hangman, Wordsearch, Junior Crossgrid, Four in a row, Reversi. Complete with disk menu. Recommend children over seven. " Good selection of games, challenging and fun. You can't go wrong" 8000 Plus.

ULTIMATE SUMS

was £14.95 NOW £9.95

Was £14.95 **NOW £9.95**The fun way to learn and practice sums. Eight types of sums, eight levels of difficulty. Includes integrated noughts and crosses game. Suitable for children aged from five to mid-teens. "The best kind of learning for your kids" 8000 Plus.

was £14.95 NOW £9.95

Designed to help students learn and revise. ULTIMATE QUIZ can be played against the computer or competitively with friends, either way it's great fun, TWO QUIZ PROGRAMS, QUESTION EDITOR, QUIZ SHEET PRINTER AND TEN SEPARATE QUIZZES - 1000 questions. Make your own quiz with the editor. Suitable for teenagers and adults "It's all good fun and rather addictive" 8000 Plus and rather addictive" 8000 Plus.

> All programs operate on the 9512 All prices fully inclusive - no hidden extras. New catalogue now ready. DGC Software, 12 Stonecroft, Eccleshill, Bradford, BD2 2HW Tel 0274 636475



THE MOST SUCCESSFUL MODERN LANGUAGE LEARNING AIDS OF ALL TIME

- **★THE FRENCH MISTRESS**
- **★THE GERMAN MASTER** *THE SPANISH TUTOR
- **★THE ITALIAN TUTOR**

NOW AVAILABLE FOR AMSTRAD PCW 8256/8512

Designed to satisfy the language learning needs of:

- School children studying O-level, CSE and GCSE
- Beginners and night class students
- Business men and women
- Holiday travellers
- Foreign students learning English

Each program includes a comprehensive series of lessons with over 2500 items of vocabulary. Additional vocabulary such as homework, coursework and revision material can all be very easily keyed in, edited and saved on disc or cassette for future use.

For PCW 8256/8512		Disc	£19.9	35
For CPC 464, 664, 6128		Disc	£19.5	95
For CPC 464, 664	Twin Cass	ettes	£16.9	95

To order please state FRENCH, GERMAN, SPANISH or ITALIAN and enclose a cheque/postal order or quote your ACCESS number.

All prices include VAT and postage.

Please remember to tell us which type of computer you have.



WORLDWIDE

·SOFTWARE ·

106A Chilwell Road	
Beeston	0
Nottingham	25
NG9 1ES	(24

602 2113 hrs)

Tel 0602 252113 (24 hrs)

106A Chilwell Road Beeston Nottingham NG9 1ES

Fax No.: 0602 430477

All prices include VAT and 1st Class Post in the UK. Export, Government and Education orders welcome.

Export, doverni	nem and
Arnhem	£14.95
Bridge Player 2150	£21.95
Business Controller (Digita)	£59.95
Classic Collection	£11.99
Classic Collection 2	
Classic Games 4	£14.95
Clock Chess 89	
Colossus Bridge 4	£13.50
Colossus Chess 4	£13.50
un School 3 Under 5 yrs	
Fun School 3 5-7 yrs	
un School 3 Over 7 yrs	
ocoscript II + Locospell	
ocofile	
ocoscript 2	
Masterfile 8000	
Money Manager PCW	
Perfect Touch Typist	
Popular Retrieve	
Popular Payroll	
Scapeghost	
Scrabble	
Small Business Accounts (Ca	

Tomahawk (Helicopter Simulator)£14.95

Trivial Pursuit£14.95

age Popular Accounts	Plus£102.95
Sage Popular Accounts Popular Invoicing	£58.95

PRO SCAN ONLY £179.99

DEREK ROGERS TOTAL ACCOUNTING ONLY £74.99

SAGE CASH TRADER Ideal for shops, pubs,

farms etc ONLY £89.00

10 x CF2 Maxell Disk ONLY £19.50

Please make Cheques and Postal Orders Payable to



Worldwide Software



Credit Card Orders accepted by Phone or Mail.

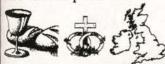
MicroDesign2

". . .without doubt, the best desktop publishing package available for the PCW." (PCW-WORLD)

- * Compatible with most PCW word-processors and graphics programs
- * Built-in word-processor and font designer
- * High quality printing (9-pin, 24-pin, inkjet and laser printers)

ALSO AVAILABLE...

Graphics libraries for maps and church publications:



Three discs of extra Fonts, including ...

Baghdad HELVETIC Florid **Bolden** Cuckoo Times Celtic Brush Scribble Slenda Seraph & more!

MicroDesign2PC

MicroDesign2 is now available for PCs and compatibles: we have made some improvements, including highresolution printer drivers, but the new program has the same familiar structure and facilities of the PCW version. All Font and Graphics library discs are also available in PC format.

THIS ADVERT WAS DESIGNED AND PRINTED USING A PCW9512 WITH MICRODESIGN2 + PROSCAN SOFTWARE AND AN HP DESKIET PRINTER

ProSCAN

The new Image Scanner for the Amstrad PCW series

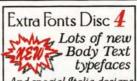
'A must for anyone (8000PLUS seriously into DTP' MAGAZINE)

- * Scanning resolution up to 400 dpi
- * Image editing and disc storage
- * Compatible with DTP programs
- * Best graphics printing ever on a PCW
- * Full A4 scanning with Amstrad Fax



SCANNED FROM A COLOUR MAGAZINE

ProSCAN (PCW)	£179.95 +	• Both for only £220
MicroDesign2 (PCW)		
MicroDesign2 (PC)	£69.95	PRICES INCLUDE VAT AND POSTAGE
Extra Fonts Discs (each)	£14.95	
Parish Library (2 discs)	£19.95	FONT AND GRAPHICS DISC AVAILABLE FOR PCW AND PC
Maps Library (2 discs)	£19.95	CREDIT CARDS



And special Italic designs NOW AVAILABLE



10 Park St Uttoxeter Staffs **ST14 7AG** TEL 0889 567160 FAX 0889 563548

CREATIVE TECHNOLOGY



The Vortex System 2000 is a high quality precision product which is easy to set up and use.

Fully compatible with CP/M and LocoScript 2 (Version 2.16 and above)

The SCA ProDisk interface supplied with the Vortex System 2000 has a throughconnector to allow continued use of other peripherals, and is available with optional Ram expansion.

Like all SCA products, it's backed with a first class telephone support service and a money back guarantee.

> 20 Mbyte £299+VAT = £343.85 30 Mbyte £360+VAT = £414.00 (+LocoScript & LocoFile) 40 Mbyte £420+VAT = £483.00

LocoFile)

60 Mbyte £530+VAT = £609.50 (+LocoScript & LocoFile)

Optional 512k Ram expansion

£59+VAT = £67.85 Next day courier delivery

£7.50 including VAT

SCA Systems Ltd., 61 Ferringham Lane, Ferring, Worthing, West Sussex BN12 5LW Tel: 0903 700288 Fax: 0903 506606

budget accounts

- You can maintain as many accounts as you wish.
- Up to twenty categories for income and expenditure per account, each with a column heading of up to ten letters
- Up to 12225 entries per account on the 8512/9512 and 3075 on the 8256
- Up to twenty letters of comment for every entry.
- Single category and full statements in two formats for any group of entries plus income/expenditure balances, analysis and bar graphs.
- Printed statements and analysis (8000s in a choice of 5 styles).
- Choice of normal/reverse video and 4 scrolling speeds for statements.
- Helpful informative error messages and easy alteration of entries.
- The program is properly documented and presented and includes a demonstration account. It is very easy to use with cursor driven menus using highlighted selections at every stage

Budget Accounts which is available for all PCW's costs £14.95 inclusive and is available only from (please state model)

CODEX 8 CHESTNUT GROVE EALING LONDON W.5 4JT 081 840 0760

why not write or telephone for a free illustrated leaflet?

codex

MAKE YOUR AMSTRAD

Yes making money with your Amstrad becomes incidental when you know how. Your micro is, if only you knew it, a gold mine. The size and make is irrelevant. Make the initial effort NOW by starting your own

HOME BASED BUSINESS

This may be the most important move you will ever make! REMEMBER: You'll never get rich by digging someone else's "diich". Anyone in the country, including YOU, can become very rich in a relatively short period of time just by doing a few basic things! It's more rewarding than playing games. The benefits are many and varied. Full or part time. For FREE details send S.A.E. to:



Home Based BUSINESS

31, PILTON PLACE (8+ 24) KING AND QUEEN STREET, WALWORTH, LONDON SE17 1DR

PCW DRAW

A full function drafting program - produces clear drawings on your PCW printer. Draws lines, rectangles, arcs, circles, ellipses, also freehand sketches with zoom. Detail Editor.

SUPPORTS AMX AND KEMPSTON MOUSE AND 24 PIN PRINTER PRICE £39.95 The improvements raise it up from the adequate to the extremely useful

DESIGNER - for knitting, embroidery...For designers of knitwear, embroidery, rugs, mosaics and any craft that normally would use squared paper. Program presents, in effect, large sheet with up to 308 x 292 squares. Up to 8 colours / stitches / textures etc. Graphical and Listing printouts. Editing facilities include Copy, Fill, Move. Save and Load "motifs" - build your own library.

PRICE £19.95

Prices include VAT, P & P

Cash with order

HTB COMPUTERS LTD. Broadwater House, Broadwater Road, Romsey, Hants. S051 8GT Tel: 0794 - 516279

TOO BUSY TO BACK UP?

We all know that we should keep backup copies of our disks but we rarely do. Copying disks with Locoscript 2 or DISCKIT takes a long time and usually involves many disk swops and it is easy to make mistakes; copying files individually is a chore.

Written especially to reduce the time taken to an absolute minimum, BACKUP will automatically to reduce the limite taken to all absolute himitimals. BACKUP copying only changed files or by copying selected tracks, whichever is quickest. BACKUP runs as a self-booting "End of Day" disk with friendly LocoScript-like menus and it requires no knowledge of CP/M. It is primarily aimed at LocoScript 2 and CP/M users, but those with only LocoScript 1 will gain some advantage. BACKUP costs only £19.95.

Used regularly **BACKUP** will allow you to back up your disks in seconds, in your choice of 2 or 3 generation sets. As well as helping yourself you will also be aiding the charity **BACUP** to help people live with cancer.

Order from: BACKUP DISC (8000) British Association of Cancer United Patients

121-3 Charterhouse Street, London EC1M 6AA
Telephone: 071 608 1785 Fax: 071 253 0123
Please state which PCW you use and number of copies required.
Cheques should be made payable to: BACUP Trading Co. Ltd.
Access or Visa Accepted.



Are you a recent reader of 8000 Plus? Or have you missed out on some of the earlier issues and want to catch up? We have limited quantities of our back issues listed below. The prices include a nominal 25p postage. Remember, all issues contain excellent TipOff sections and the selection of BASIC listings, plus the other regulars.

Issue 21 New LocoScript fonts reviewed, Guide to add-ons, PC/PCW link.

£1.75

Issue 30 Speech synthesiser, teach your PCW to talk back, transferring files from a PCW to a PC, Lightning Basic review.

Issue 32 Astrology on your PCW. Learning C/PM, PCW User Groups, The Amstrad-Sugar story. Publishing books. £1.75

Issue 33. Four spreadsheets compared, C/PM for beginners, five budget printers reviewed

£2.00

Issue 34 . Accounting packages reviewed, the full report, write a bestseller, the series on spreadsheets.

£2.00

Issue 35 Take a look at communications. budget modems analysed. Play sweet music on your PCW. The PCW out on Safari in Africa.

Issue 37 Take a look at the jumbo ram drive for your PCW. Choose between three hard discs. Mini Office Plus, is it worth the wait?

Issue 38. Need a third disc drive? The Composers Pen for the PCW Musician. Women in computing.

Issue 39 .Two new games. Choose a database from our selection. Which interface does what?

£2.00

Issue 40 How to rescue lost data from damaged discs. PCW speech synthesiser. A tour of the DTP options.

Issue 41 The RAM pack that slots onto the PCW. Use your PCW as a fax. £2.00

Issue 42 Language learning packages. The Top Ten PCW games. Which wordprocessor should you choose.

Issue 43 Discover your family tree with your PCW. How to get to grips with Mallard BASIC.

£2.00

Issue 44 Choosing a printer. Step by step guide to adding a 5.25" drive. The lastest clip-art package for Stop Press. £2.00

Issue 45. New software aimed at keeping you fit and healthy. Three horseracing predictor programs. How to add a 3.5" or 5.25" drive to your 9512. £2.00

Issue 46. The latest fax machine from Amstrad taken through its paces. Locoscript PC, no need to learn a new word processor. Home Entertainment Centre, the new compilation form CDS. We show you how to get started in communications.

Issue 47. How to clean your printer in 10 easy steps. Predictive software on test. The second part of our comms special. 10 top Flipper tips to make life easier.

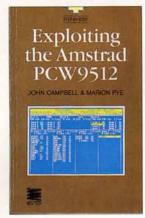
To order back issues use the order form opposite

The specialist Amstrad PCW book of your choice FREE!

Select one that suits your requirements and get it absolutely free when you take out a subscription to 8000 PLUS.

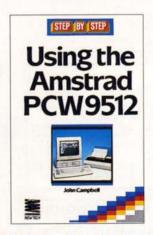
Exploiting the Amstrad PCW 9512'

For more experienced users who want to use their machine as a full blown computer, this book not only examines the PCW as a word processor with LocoScript but also explores the range of other programs available. 300 plus pages with detailed information on LocoScript, LocoMail, CP/M, LocoFile, dBase II, SuperCalc 2 and Mini Office Professional.



'Using the Amstrad PCW 9512'

Designed for the relative beginner, this book has over 170 pages describing how to understand and use all the facilities of the Amstrad PCW 9512. The clear text and screen shots take you step by step through using the hardware, using discs and files, mailshots creating documents, page layout, CP/M and the printed page. In fact, everything you are likely to need for a successful future.



Each book costs at least £11.95 to buy. You will receive one free when you subscribe to 8000 PLUS today

12 ISSUES OF 8000 PLUS FOR ONLY £23.40 AND THE AMSRAD PCW BOOK OF YOUR CHOICE - ABSOLUTLY FREE!

A subscription makes real sense

- You safeguard yourself against any future price increases. The price you pay now is guaranteed for the duration of your subscription.
- You get complete peace of mind. Our no-nonsense guarantee means you can cancel your subscription at any time and we will refund you for all unmailed issues.
- Plus, of course, you receive a free book on the Amstrad PCW which will improve your knowledge and performance still further.

To get your copy delivered at this inflation-proof price and recieve your free book, complete the coupon below and return it immediately. Alternatively, telephone our credit card hotline on 0458 74011.

YES! Please	enter/renew	my subscription	to 8000	PLUS	and	send	me	the
free An	nstrad PCW bo	ok I have ticked						

'Using the Ams	trad PCW 9512' 🗆 'Exploit	ing the Amstrad PCW 9512'
THE ANNUAL SUBSCRIPTION	REQUIRE IS (TICK AS APPROPRIATE)	
□ UK £23.40	☐ EUROPE £38.40	REST OF WORLD £53.40
To ensure you recieve y	our magazine quickly and undamaged, all	overseas subscriptions are sent Air Mail
PLEASE ALSO SEND ME THE F	OLLOWING BACK ISSUES (SEE OPPOSITE PAGE)	41 42 43 44 45 46 47 48 49 50 51 52 53 54 (PLEASE CIRCLE)
TOTAL DAVMENT C		
IVIAL PAIMENI E		Name
MY METHOD OF PAYMENT IS	(TICK YOUR CHOICE)	
VISA	☐ ACCESS	Address
EXPIRY DATE		Audi 000
CARD NO		
CHEQUE (MAKE PAYABLE	TO FUTURE PUBLISHING LTD)	
Enclose this coupon (tog	ether with your cheque if applicable) in an	
envelope and send to:		Post Code
8000 SUBSCRIPTIONS, FRE	EPOST, SOMERTON, TA11 7BR	8+/

DISCOUNT SOFTWARE

FOR THE PCW 8256, 8512 & 9512

WORD PROCESSING

Please state which PCW model. All Locomotive products are for use with LocoScript 2 only unless otherwise stated LocoScript 2......24.95 LocoSpell21.95 LocoMail24.95 LocoMail (for LocoScript 1)9.95 LocoFile27.95 LocoScript 2 and LocoFile......36.95 LocoScript 2 and LocoSpell.....31.95 LocoMail and LocoFile......41.95 Locomotive Printer Support Pack24.95 combines Standard & 24 Pin Printer Drivers disks, Printwheels disk and keyboards disk LocoFont (1 and 2).....24.95 LocoFont 24 (Text & Display).....24.95 3" Thesaurus (for LocoFile)14.95 Supertype 2 (fonts program)12.95

PROTEXT PCW

The fast alternative to LocoScript, with Mail Merge and Spell Checker. £37.95

DATABASES

Masterfile 8000	31.95
AtLast Plus	
Cornix Card Index (state model)	19.95
Minerva First Base	

BUSINESS & FINANCIAL

MONEY MANAGER PCW

The best selling finance package for small business or personal use £31.95

Cornix Simple Accounts 2	49.95
Cornix Invoicing	
Cornix Job Estimator	
full specifications available on	request
Stockmarket 2	34.95
Cracker 2 Turbo, spreadsheet	35.95
System 3 (by Digita)	29.95

SUPERCALC 2 £39.95

PROGRAMMING

Arnor C	35.95
Hisoft C	35.95
Nevada COBOL	35.95
Pascal 80	35.95
Devpac 80	35.95
Maxam 2	

D.T.P. AND GRAPHICS

PRO-SCAN

At last a high quality scanner for all PCW's. Based on a 400 dpi hand held scanner & offering 4 scanning modes this is the ideal partner for MicroDesign 2.

£179.00

MICRO DESIGN 2

The best DTP program available for the PCW. Drives 9 pin, 24 pin and even Laser printers for top quality documents.

software only £39.95 with AMX Mouse £79.95

STOP PRESS DTP!

new low prices

STOP PRESS SOFTWARE 31.95 STOP PRESS & AMX MOUSE PACK 65.95

AMX MOUSE

suitable for STOP PRESS, MICRO DESIGN 2, THE DESKTOP PUBLISHER, PROSCAN, and most PCW graphics software

OUR PRICE £46.95

Desktop Publisher and Mouse	59.95
MasterScan and MasterPaint	49.95
MasterScan, Paint, and Mouse	89.95
Please call for advice before ordering Me	asterscan.

AMSOFT CF2 DISKS

5 for 11.00 10 for 19.95 SPECIAL OFFER; 20 AMSOFTS, £36.00

CONTINUOUS PAPER

Size, weight/no. sheets 500	1000	2000
11" x 9.5", 60 gsm6.95	10.95	18.95
A4, 70 gsm7.95	13.95	24.95
A4. 80 asm8.95	14.95	25.95
A4, 90 gsm9.95	16.95	,

MINI OFFICE PROFESSIONAL complete suite of Word Processor, Comms, Spreadsheet (includes Graphics) and Database programs, manual and John Hughes' All In One Mini Office Book

£25.95

PCW UPGRADES

The state of the s	
8256 MEMORY EXPANSION	19.95
Internal expansion comprising solderless chips	s and
complete easy to follow fitting instructions	
8256 3.5" Second Disk Drive	89.95
Amstrad FD4 second 3.5" drive	CALL
SCA 512k Rampack for all PCWs	113.85
SCA 768k Rampack for 8256	136.85
Flipper 2 Plus requires 512k	

SERIAL (RS232)/ PARALLEL INTERFACES SCA PROFESSIONAL £49.95 SCA PRO PLUS £59.95

EDUCATIONAL & TUTORIAL

Fun School range, by Database
Fun School 3, 2 to 5 years17.95
Fun School 3, 5 to 7 years17.95
Fun School 3, 7 to 12 years17.95
LCL Software
Micro English (Age 8-GCSE)19.95
Micro Maths (11-GCSE)19.95
Foreign Languages, by Kosmos
French Mistress (12 to adult)15.95
German Master (12 to adult)15.95
Spanish Tutor (12 to adult)15.95
Italian Tutor (12 to adult)15.95
DGC Software Range
Junior Playtime (4 to 8 years)10.95
Schools Out (7 to 14)10.95
Ultimate Sums (5 to 15)10.95
Ultimate Quiz10.95
Others
Iansyst Crash Course18.95
Iansyst Two Finger Conversion
'correct' typing from the outset. Two Fingers is for more experienced keyboard users, and gradually coaxes you into using all of your fingers on the right keys!

GAMES

Clock Chess 89	14.95
Home Entertainment Centre	14.95
Cross-Grid	10.95
Head Coach v3	16.95
Lancelot	14.95
Sir Perceval	14.95
Sporting Triangles	14.95
Terracom	14.95
Tomahawk	14.95
Tank Attack - 2 or more players only	14.95
Time and Magik	10.95

AND THE RESERVE OF THE PARTY OF	
MISCELLANE	OUS
Dust Covers	ul Comment
8256/8512, 3 piece	9.95
9512 (w/out sheetfeeder), 3 pc	10.95
9512, inc sheetfeeder, 3 pc	12.95
Ribbons	
8256/8512, 14 metre fabric	each 3.95
	two for 7.00
9512 continuous fabric	each 2.95
	two for 5.00
9512 Amstrad branded Film	each 3.95
	five for 17.95
	12 for 39.95

PRINTERS

All of the following printers are supplied with the necessary cable for your 9512. If you have an 8256 or 8512 you will need a suitable interface, such as the SCA Professional at £49.95. A suitable cable will then be supplied to fit this. We are happy to give our advice on printers. Please call the number shown below during normal office hours.

9 Pin Printers

PANASONIC KXP - 1081	159.95
STAR LC-10 Mark One	169.95
STAR LC-10 Mark Two	189.95
STAR LC200	219.95
24 Pin Printers	
STAR LC24-200	269.95
PANASONIC KXP-1124	259.95
STAR LC24-200 COLOUR	299.95

PRICES INCLUDE VAT & POSTAGE TO THE U.K. SEND SAE NOW FOR COMPLETE PRICE LIST Education, Local Authority and Government orders welcomed.

Overseas customers also welcome, please call or write for quotations.

All goods subject to availability, all prices subject to change without notice. E&OE.

CALLERS WELCOME 9.30 TO 5.00 SIX DAYS



2, The Arches, Icknield Way, Letchworth, Herts, SG6 1UJ TELEPHONE ORDERS AND ENQUIRIES LETCHWORTH (0462) 48.11.66 (6 lines)





FAX: 0462-670301

VISA

Proprietor: MJ Cooper.

used to know a home computer pundit who swore by the Sinclair ZX81. This, according to him, was the trailblazer machine, the one that began the entire computer revolution. Yes, true enough, it used the same microprocessor as the present-day Amstrad PCW, but there were a few little deficiencies. My pal was undaunted.

Alright, the horrible plastic membrane keys were no good. So he'd added a real keyboard. Also, the picture output to the TV screen was terrible. He decided to add a real monitor. And of course the ZX81's data storage on slow, slow cassettes was something of a joke, so he had this huge adaptor box sticking out of the computer, interfacing to a hard disc drive.

That was a few years back, and, in moments of quiet reverie, I often like to imagine the state of his desktop today: a seething spaghetti of wires and ribbon cables entirely concealing Sinclair's original plastic box, trailing off to CD-ROM units and modems and, of course, the status symbol for home users ... a laser printer.

This all came to mind when I went mad and bought my own laser printer. It seems perverse to add a printer costing substantially more than the PCW, but there are other computers here too, and anyway I was feeling gloomy and wanted a new toy (too many computer peripherals are bought for no better reason than this).

In 1989, incidentally, the prices of laser printers began to slip visibly. They used to cluster around the £1500 mark, but there's now a fair choice at well below a thousand. You have to shop around with steely eyes, because the Recommended Retail Price con is in operation: "RRP is £1399 but we can offer it for an astonishing £800!" Just as with hi-fi systems, research invariably discloses that (a) nobody anywhere is asking the full RRP; (b) everybody else, especially mail-order outfits, is undercutting the first price you heard.

Me? I bought an Epson GQ-5000 by mail order for less than half the official fantasy price, and started connecting it to all the computers in turn. Would it work with a PCW? Oh, the agonising suspense.

The wally approach

I must confess to imitating one bad habit of real software professionals rushing into things without looking at the instructions. ("Manual? We don' need no steenkin' manual!") My first discovery was that although I could see the alternate printer drivers called D630.PRI and

FX80 NLQ.PRI on LocoScript's disc manager screen, the menu revealed by f6 "Settings" was adamant that no printers but MATRIX could be selected. Hmm. I capitulated, peeped into the manual, and, to my immense expectation, found nothing.

Group therapy

A bit of head-scratching solved this one. As supplied, the printer files were in Group 1. LocoScript was not happy unless you started with them in Group 0, so it could then copy them to Group M for use. I did the copying, went through the selection routine for FX80 NLQ again, and was told "Printer absent". Aha: LocoScript contacts the printer with a little chug when you load the start-of-day disc. Time to restart with Shift-Extra-Exit. No, on second thoughts: time to save the new printer setting (same f6 menu) and then restart.

I'd already connected the hardware. Our 8256 has a CPS8256 interface box on the back, mostly used for serial communication with IBM computers. A standard ("Centronics") parallel cable joined the box to the printer, which can be set up via little buttons on the front to imitate various other machines, including Epson FX models ... hence the choice above.

Excitement mounted.

Well, it sort of worked. A beautifully printed sheet slid out. The justification and pitch changes were all right (the printer's basic Courier 10 font looked a bit crowded in 12-pitch, but I could fix that by selecting another typeface with the printer buttons). Italics, boldface, underlining, super- and subscripted text, all tripped out with consummate ease.

Not so successful were the various unusual characters I'd put in the test document. If they were in the standard international character sets, they printed exquisitely: Continental accents like e-acute, for example. If not - meaning that LocoScript constructs them as graphics rather than just sending an ASCII code to the printer — they printed as spaces. This was the fate of my Greek and Old English test characters, and likewise of the copyright sign (which, maddeningly, is in the printer's character sets).

It seemed a hopeful start. I fiddled with the document and tried printing again. Instantly, nothing whatsoever happened!

Oops

No doubt anyone from Locomotive who happens to be reading this will be gnashing his or her teeth, and preparing a strong letter about how I



Laser Crazy

Intrepid explorer David Langford goes in search of an alternative PCW printer with some very frustrating results...

should have bought their disc of printer drivers before even considering this experiment. All the same.... Although the laser gadget imitates an FX matrix printer pretty well, there is a failure of communication somewhere between it and LocoScript.

After one page, the software gets all petulant and insists that the printer is "waiting for paper". Meanwhile, a gigantic stack of nice clean A4 paper sits in the printer tray, ready to feed automatically.

The next logical (devoid though these situations generally are of logic) thought came the engineering ritual of "Keep changing the parts until it works." I swapped cables: no luck. I changed the model of PCW to a 9512; the procedure for setting up the printer was much the same, except that over there the dotmatrix driver file is called

Also, the 9512 meant another cable change: instead of the

"Centronics at both ends" connector previously used, you need a standard IBM parallel printer cable.

I'm still looking at the 9512 disc manager screen, which after one printout is stuck saying "Paper please" (a phrase which makes me retort "Comma, please!").

This is the state of the art in PCW laser printing research at the crumbling, poverty-stricken HQ of Ansible Information. The saga could well form a suitable plot for a new soap opera. It certainly beats the storyline of some of the ones currently gracing our screens.

Imagine the tension: Will DL grit his teeth, ignore the anguished protests of Barclaycard, and buy more printer drivers? Will LocoScript then continue its mocking claim of "Waiting for paper"? Will our editor tell me to shut up on the subject? (My lips are sealed...Ed)

Stay tuned, or not, for another sleep inducing episode...

FAST COMPUTER REPAIRS

From London's leading Amstrad Authorized service centre. 48 hour workshop repairs 8 hour on site call out service Low fixed charges with 3 month guarantee on all repairs.

Other services available:

- ★ Hardware/software sales (new & reconditioned) (we also buy & offer P.X. on second hand equipment)
- * Professional training in all popular applications
- Service agreements
- ★ Business consultancy service
- ★ Software development
- * Amstrad consumable sales (manuals disks etc)

You've TRIED THE REST NOW CALL THE BEST PC Microcentre Ltd 081-840 5343 / 081 579 1667

9 Cherington Road, Hanwell, London W7 3HL

LETTA-HEAD PLUS

Design letterheads, receipts, posters, labels, tickets for home or small business Create your design by placing text in any combination of fonts in any mixture of 81 different sizes anywhere on screen Add graphics in the form of lines, arcs, circles, elipses, shading and icons. When you're happy, print headings in a choice of 18 different sizes, use your design in labels up to 4" x 2" in size or print groups of designs as a poster. Easy to use program includes full instruction manual, 15 fonts and a font and icon designer.

Price £18.50 inclusive.

ALSO WordFinder - THE program for word game enthusiasts.

Price £13.50

For further details and orders phone (0433) 30799 or write to:

BRADWAY SOFTWARE (8P), "HILLSETT", UPPER PADLEY, GRINDLEFORD, SHEFFIELD, \$30 1JA.



PCW-PC FLOPPY DISK DRIVE KIT

Amstrad PCW users wishing to upgrade to a PC or compatible are asking

Can I transfer my existing data from my PCW computer to my new PC compatible? THE ANSWER IS YES!

TIMATIC SYSTEMS offer a unique kit which will allow you to connect a standard Amstrad FD4 second 720K disk drive to your PC or compatible. The simple to use kit allows you to connect the drive (as if it were a standard external floppy disk) to most machines that have a normal PC type floppy controller and suitable cables.

Software is provided with all versions of the kit to allow AUTOMATIC DETECTION of which Amstrad disk format you are reading. The kit will allow you to READ and WRITE files from both CP/M and Locoscript.

Timatic Systems Ltd., 7 Palmerston Business Park, Newgate Lane, Fareham, Hampshire, PO14 1DJ. Telephone (0329) 239953 - 236727

Fax (0329) 237051 for Sales and MasterCard/Visa Orders

ONLY POOLS AND HORSES

Every program written by a mathematician who has spent many years in the betting industry. Programs that utilise the tried and trusted methods of the professional, not pie in the sky theories that fail to pass the test of time.

FOOTBALL ROXFORM Written by a former pools expert for Littlewoods. The program has forecast over 50% more draws than would be expected by chance. Homes, aways and draws shown in order of merit and true odds given for every match. Merit tables show at a glance the teams currently in form and those having a lean spell. Australian Pools program

POOLS PLANNER by the same author. Full details given of 369 easily entered block perms ranging from 9 to 73960 lines and from 12 to 56 selections. All are accepted by the pools firms and are checked in seconds by your computer.

RACING BOXFORM Course characteristics (built into the program) as well as the form of

the horses are considerd to speedily produce an order of merit for each race. Designed for flexibility allowing users to amend the program if they wish. Price still includes the highly acclaimed HANDICAP WINNER - more than 1000 winners every year - over 25% of them at or better.

PRICES (Tape) £15.95 each. £25.95 any two. £35.95 all three. For discs please add £2 per program. Order two or more and receive FREE a program to work out almost any bet. So good it's used by bookies.

VISA

Advertised for six years in the sporting and computer press
BOXoft CLEVER..GET THE BEST
BE

BOXOFT (8P), 65 Allans Meadow Neston, South Wirral. L64 9SQ. Cheque/P.O./ Access/Visa Tel: 051 - 336 - 2668

KKLIPS

CLIP ART FOR USE

WITH MICRODESIGN 2

Supplied on 3" disc for

Amstrad PCW

BBC B & MASTER AMSTRAD CPC & PCW COMMODORE 64/128 SPECTRUMS

AMSTAT* & STATMODE MODULAR STATISTICS AND MATHEMATICS PACKAGES

MARKETED BY

S. C. COLEMAN LIMITED

AMSTAT for PCW & CPC

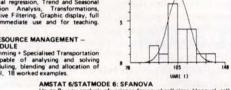
STATMODE for PC Compatibles

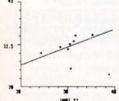
AMSTAT 1/STATMODE 1 — means, st. devs., variance, skew, kurtosis, 1—sample, 2—sample, and paired t—tests, 1—way—AQV with single and mult. conf. intervals, 2—way—AQV, correins, regression, histograms, scattergrams, transformations, file store and retrieve, output to WP. file, manual, Flexible variables and observations to a total of 500 (+) data points (12000 STATMODE).

AMSTAT 2/STATMODE 2 - 27 nonparametric tests providing a "complete Siegel". Binomial, Chisquare(3), Kolmogorov-Smirnov(2), Runs, McNemar, Sign, Wilcoxon, Walsh, Randomisation(2), Fisher, Median (rextension), Mann--Whitney, Wald-Wolfowitz, Moses, Cochran, Friedman, Kruskal-Wallis, Contingency, Spearman, Kendall, Kendall partial, Concordance.

AMSTAT JSTATMODE 3: FORECASTING
An array of business oriented mathematical and statistical software: Linear and Polynomial regression. Trend and Seasonal Variation, Multiple Regression Analysis, Transformations, Exponential Smoothing, Adaptive Filtering, Graphic display, full printout, manual suited to immediate use and for teaching. (Additional program for PC).

AMSTAT 4/ STATMODE 4: RESOURCE MANAGEMENT — LINEAR PROGRAMMING MODULE General Purpose Linear programming + Specialised Transportation and assignment variants. Capable of analysing and solving problems of sequencing, scheduling, blending and allocation of scarce resources. 40 Page menual, 18 worked examples.





AMSTAT 6/STATMODE 6: SFANOVA Up to 8—way analysis of variance for eq Amo I A I NO I A I MOULD E SEATOVA
Up to 8—way analysis of variance for equal cell sizes. Unequal cell sizes on 1—way AOV. Maximum of 2000 data points (300 on unexpanded CP/M 2.2, 4000 on PC). Input from ASCII Files.
Output to screen or text file with full AOV table + main and interaction means and Neuman—Keuls on main, effects. Manual.
(Disc only).

AMSTAT 7/STATMODE 7: RESOURCE MANAGEMENT II—
STOCK AND PRODUCTION ANALYSIS
Calculation of economic order quantities for both single and
multiple items. Dynamic programming to calculate optimum
production schedules for single items and consolidation of several
results into a multiple schedule. Also Pareto and Lorenz analysis.
Output to screen or printer. Includes operational manual with
worked examples.

The programs have applications in research of all kinds, education, sales, production planning, work and method study, financial planning, personnel, social work etc.

"I will certainly be using them myself in the future and no reviewer can offer a war

rumi tilmr.			an i i diesaronai comi	bernight
Price List	CPC	PCW	PC	
AMSTAT1	£25.95	£27.96	STATMODE1	29.95
AMSTAT2	£39.95	£39.96	STATMODE2	29.95
AMSTAT3	£25.96	£27.95	STATMODE3	29.95
AMSTAT4	£25.95	£27.96	STATMODE4	£39.95
AMSTAT6	£25.95	£27.95	STATMODE6	£39.95
AMETATT	COE OF	C27 06	CTATHODET	C20 04

ANY 2 - 15% DISCOUNT ANY 4 - 20% DISCOUNT Please enquire for Educational quantity discounts.

CHEQUES AND P.O. TO S. C. COLEMAN LTD.
33 LEICESTER ROAD, ASHBY DE 1.4-ZOUCH
LEICESTERSHIRE, LEG SDA

ALL PRICES INCLUDE POST AND PACKAGING IN THE U.K. BUT EXCLUDE VAT. TEL: 0530 415919

24 Hour Answerphone. Technical enquiries after 6.00pm *AMSTAT Is a trademark of AMSTRAD PLC and is used under licence

Graphics reference with every order Cheques/PO's to: PW COMPUTER SERVICES 75 NORTHWAY GUILDFORD SURREY GU2 6SG ONLY £8.95

PCW OWNERS IN THE NORTH EAST

A shop that understands all your needs We stock the largest range of PCW software in the area PCW upgrades and repairs

Microtyne

1/3 Gallowgate, Newcastle-upon-Tyne Tel: 091 261 4088

On the Mend

If only poor printout quality on the PCW9512 could always be the result of simple, relatively inexpensive faults- like a spent ribbon. This month, we show you how to keep the cost down when the damage looks more terminal

he PCW9512 printer suffers from an inordinate amount of wear and tear. Because the structure of the printhead is so complex - in comparison to that of the 8000 series machines - it is more than likely that sometime during its lifetime, it will develop a fault.

The daisywheel printer works much like a typewriter, by the somewhat brutal method of literally hammering an impression through a ribbon and on to a piece of paper. The repetitive stress which the whole mechanism is subject to means that, sooner or later, something is sure to break.

So, how can you tell when your printer needs attention? Check the quality of the printout. If the effect which you are getting is that of a generally faded printout, with loss of definition, then, in a great deal of cases, it is simply a question of replacing the ribbon. Now, look at the individual characters. If some of them are incompletely formed - or, are missing altogether - then it is likely that the cause is more serious. If this is coupled with a noticeable reduction in the noise which the characteristically clattery daisywheel printer is making, then there

is strong evidence to suggest a mechanical problem.

One of the most common faults developed by the 9512 printer mechanism is a cracked armature. The armature is the part of the mechanism which makes the hammer hit the daisywheel. It suffers from incessant mechanical shock and fatigue, and, although it is made of quite thick and sturdy plastic, it can easily develop a fracture after prolonged use.

The armature is situated to the right of the mechanism (see diagram below). It consists, as its name suggests, of a black plastic 'arm', which is attached on to a spindle by a small clip known as the E-ring. You can inspect the armature without having to completely dismantle the printer; simply lift the grey plastic flap at the front of the case, and remove the ribbon cassette. If you look down inside the printing device, the black armature is quite clearly visible.

If a crack has developed, it may not be instantly obvious - the one which the 8000 Plus printer developed was, quite literally, a hairline fracture. Use a magnifying glass or similar to inspect the area. If you see a crack, then it's time to take action. If you don't, there

could be another reason for the reduction in the quality of your printouts, and we've looked at a couple of these in the box below.

The armature can be replaced professionally, but it could cost up to £30 or £40, and, of course, it means that you will be without your printer for the duration of the repair.

The alternative is to repair it yourself. The operation involves quite delicate work, and, because of its location within the printer, the armature seems at first to be difficult to reach.

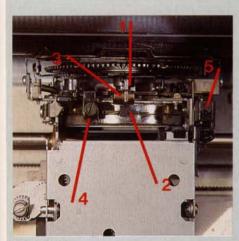
However, all it takes is a bit of patience, and a few simple tools (see Fact File in the margin). And, with the cost of obtaining the replacement part coming in at under £6.00, it will be well worth the investment in time and money to carry out the operation yourself.

Tools you will need are, at the most elaborate, a crosshead and flat bladed screwdriver, a pair of thin-nosed pliers, some vaseline and a cocktail stick. You could do the job with just a medium screwdriver and a pair of scissors. It should not take you more than about half an hour. Our thanks to Geoffrey Keen, Steve Mayer and Bernard Wilkie for their help in compiling this article.

Fact File

- The spare part which you will need is an armature. Replacement armatures are available from CPC Spares, PO Box 158, Preston, Lancashire, telephone (0772) 555034. The charge is £5.55, which includes the cost of the part, VAT and postage.
- · A company called Dictaphone (address and telephone overleaf) offer an annual, onsite service contract for when the guarantee on your PCW has expired. The charge covers all parts and labour. Prices for a one year contract as follows: PCW8256 - £53.00 PCW8512 - £65.00 PCW9512 - £73.00 There are generous discounts available if you take out a contract before the guarantee period has expired.

Common printhead faults - and how to repair them



- 1 Hammer
- 2 Rubber resting pad
- 3 Hammer weights
- 4 Resting pad arm
- 5 Armature

If you've examined the printer armature, and found that it is not damaged, there could be a problem with the hammer itself. Check the

following - they are simple to identify and easy to repair. Although these repairs have been successfully tried and tested, 8000 Plus can accept no responsibility for any damage caused to readers' printers as a result of our instructions.

Loss of the hammer weights

The weights (see diagram) are secured at either side of the printer hammer by a small metal pin. If that has snapped, then it's more than likely that the weights themselves are lurking somewhere inside the printer casing.

To re-position them, you can either find a pin small enough to fit into the hole through the hammer, or attempt to fix them with a tiny nut and bolt. Try using a small electric screwdriver to drill a hole of the necessary diameter through the back of the hammer head. Fix the weights back into their original position, and secure the nut and bolt. The pressure of the hammer should be then be restored, and printer output greatly improved .

Loosened resting pad

A parked hammer rests against a small rubber pad. The pad is attached to a flexible arm, which acts as both a shock absorber and a spring board for the hammer head. If the pad is loose, it will not provide the hammer with the impetus required to strike the daisywheel properly - and it could damage the hammer head beyond repair.

First of all, check that the screw to the left of the resting pad arm hasn't worked itself loose. Tighten it if necessary.

Now, inspect the rubber pad itself. If you look carefully it is slotted on to the arm. Try pulling the top the pad towards you (ie away from the hammer). If it reveals a gap quite easily, then it needs some attention.

All you need to do is insert a piece of plastic into this slot to solve the problem. Any small piece will do, but the plastic clip which secures new ribbons is just the right thickness.

Cut off a small piece with a pair of scissors and insert it into the slot on the side of the arm towards you (ie on the other side of the arm away from the hammer). Make sure that the portion you are using is not too thick - this could result in excessive stress and even tearing. The pressure exerted from the rubber pad against the plastic insert and the hammer will be sufficient to ensure that the hammer head musters an adequate striking force against the daisywheel.

Hints & Tips

• Step 1:

The black plastic flaps are hinged in rather an awkward way. They need to be angled at about 45 degrees before they will slide free of their hinges.

- Step 2: There are three securing catches at the inside front of the casing. If you find them stubborn to remove, use the flat bladed screwdriver to lever them free.
- When the roller is exposed, you will probably notice that it is covered with ink. It can be easily cleaned, using a sheet of kitchen towel soaked in white spirit. Rub the roller with the towel, turning it by hand. Either use a fresh piece of kitchen towel to dry the roller, or leave the white spirit to evaporate.
- Step 3:
 If you lift the bundle
 of coloured wires
 free of the slot
 which takes them
 from the inside to
 the outside of the
 printer, you will
 find it easier to
 manoeuvre the
 circuit board.
- Step 4:
 If you can find an object which will fit inside the easing to support the printer mechanism, do; it provides a very secure prop. A hard back book is ideal.
- Step 5: Scissors are a good tool for this tricky job. Placing the tips of the blades inside the mouth of the Ering clip, try opening the scissors, thus widening the gap sufficiently to release the clip.



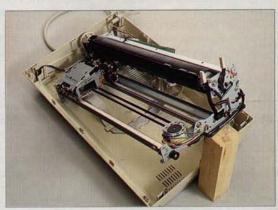
Before you do anything else, ensure that the computer is switched off at the mains. Disconnect the printer, and position it in front of you, so that the words 'Amstrad Daisywheel Printer' are reading the right way up Remove the front and back plastic flaps from the top of the casing, and take out the ribbon cassette. Using the crosshead screwdriver, loosen the three screws at the back of the casing. Repeat the procedure with the front two screws.



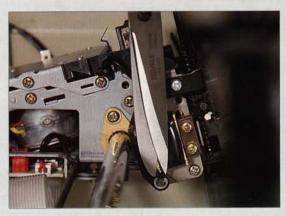
Now, slowly lift the case about two or three inches at the back. The screws can stay in their slots, but take care not to make any sudden movement which could dislodge them. As you lift up the back, the front will begin to rise. There are three securing clips on the inside of the front lip of the casing, which will prevent the lid coming off altogether. Use a lever action to release them. Lift the whole lid carefully away from the base, and put to one side.



Lift the bundle of black wires out of their clip on the right hand side of the base of the printer casing. At the front, lift the metal bar until the round rubber mounts are clear of their holders. Now, pull that same bar gently forward. There are corresponding rubber mounts - or feet - on the base of the back of the casing. These will come out of their housing as you pull the front bar forwards. Grip the roller with your other hand to help move the mechanism.



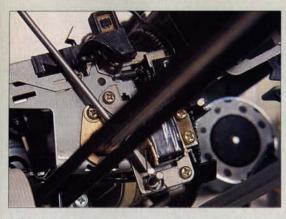
4 Gripping the roller once more, lift the whole internal mechanism free of the casing. It is quite heavy, and do not attempt to remove it completely. Move it over to the right until the platen knob (the plastic 'winder' which turns the roller) at the side can be repositioned inside the printer casing. Lift the right hand end clear of the case edge, and support it on a block or similar so that it is positioned at an angle of at least 45 degrees.



In this raised position, the black plastic armature is clearly visible at the rear right hand side of the daisy wheel carriage. Locate the small, silver coloured E-ring clip. Use either the tips of a pair of scissors, or a flat bladed screwdriver, to turn the mouth of the E-ring clip towards you. Now comes the tricky part. Press down gently but firmly on to the clip, and gradually ease it off the supporting spindle. Be prepared for it to fly off suddenly - it can happen!



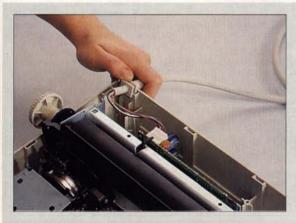
Retrieve the E-ring, and put it in a safe place. The black plastic armature sits quite loosely on the spindle. Push the edge of the flat bladed screwdriver behind the armature, and gently lever it away from the spindle. Let it drop down into the casing - it's too fiddly an operation to pick it out with any kind of tool. When it is free, take a look at it; the offending crack will be evident (beneath the tip of the screwdriver blade in our picture). Discard the armature.



Take the replacement armature, and keep it close to hand. Put a small smear of vaseline on the awaiting spindle. Using the flat bladed screwdriver, push the long arm of the spring which is attached to the spindle backwards. Now, put the new armature into position on the spindle, and let the spring arm rest on the back of it. The position that the spring now assumes will be where it 'wants' to be, so it won't be difficult to put into place.



Now, take the E-ring, and place it roughly back into its original position on the end of the spindle. Turn it so that the mouth of the clip is pointing away from you. Using the flat bladed screwdriver, ease the clip back into position on the spindle. This, again, is quite tricky, because of the pressure which you need exert on an area which is so restricted in terms of working space. It will click home eventually.



All that remains now is to reassemble the printer. Remove the block which has been supporting the end of the printer mechanism. Lift the left hand end of the mechanism so that the platen knob is returned to its position on the outside of the case. Keeping the front higher than the back, slide the rear feet, with their black rubber boots, back into their stops. Drop the front mounts down in to their holders. Press the wires back into the clip, and place the



10 Bring the bail bar forwards. Now, take the top of the printer case, and make sure that all the original screws are still there. Put the three clips back into position at the front of the case, making sure that they are correctly aligned. Let the lid down slowly until it fits properly all the way around. Using the crosshead screwdriver, secure the five screws back into position. The final step is to replace the black plastic flaps at the front and back of the lid.

COMPANY	ALL PCWs?	CARRIAGE CHARGE	TIME TAKEN
A1 Computer Services			
Telford (0952) 502737	Yes	£15	5 days
Avcom Electronics			
Kingsbridge (0548) 856279	Yes	n/a	7 days
Dictaphone Ltd, Learnington Spa			
(0926 429124)	Yes	n/a	(on site)
GMC Computers, Suffolk			
(0787) 280526	Yes	£10	7 days
MicroTyne, Newcastle			
(091) 261 4088	Yes	£10	24 hrs
Software Plus, Bath			
(0225) 448855	Yes	n/a	5 days
Somerset Micro Repairs			
(0278) 74528	Yes	£7.50	10 days
Suredata, Wembley			
(081) 902 5218	Yes	£11.50	24-48 hrs

Despite the fact that the printer repairs we have looked at above are easy to carry out, some of you may still prefer to hand your 9512 printer over to the professionals for repair work. Opposite is a round-up of some of the country's PCW repair centres. Prices vary according to the nature of the fault, but we found that most repairers are happy to offer a quotation for work over the telephone. All figures quoted represent averages; some may be subject to change.

In next month's DIY maintenance section, we'll be taking a look at the PCW8000 series printers. What danger signs can you look out for to indicate that the printhead is damaged? How can you prevent the development of faults? Is it easy – and financially viable – to carry out repairs in the home? Our step by step, fully illustrated guide leaves no stone unturned. Don't miss it!

Hints & Tips

- Step 7:
 Use a cotton wool
 bud to apply the
 vaseline to the
 spindle head. You
 only need a very
 small amount, and
 a cotton bud is of
 an ideal size to
 access the area in
 question. Use one
 end of the bud to
 apply the vaseline,
 and the other to
 clean off the excess.
- Step 8: To check that the E-ring is correctly in position, try turning it with the flat bladed screwdriver. If it rotates easily, it is in the correct place.
- Step 9: Grip the roller when you are trying to reposition the printer mechanism. It is the most durable of all the elements inside the casing, so do not be afraid of holding it tightly.
- Step 10: As you are preparing to replace the lid of the casing, check that the coloured wires at the front right hand side of the interior have not become trapped underneath the metal bar. If you then replace the lid, and find that it does not fit closely, lift it up and check for obstructions. The most likely culprits will be the circuit board, or the rubber feet at each corner of the mechanism's frame. Before you use the printer again, clean the bail bar and its cylindrical rubber grips with some kitchen towel doused in white spirit.

AnsibleIndex Plus

The only LocoScript indexer. AnsibleIndex Plus extracts from your documents (with correct

WORDS, PHRASES AND INVERTED PHRASES HEADINGS AND SUB-HEADINGS THEMES AND SUB-THEMES CHOICE OF ALPHABET SORTING CROSS-REFERENCES

The index is compiled automatically from this information, and can be edited, printed, etc, through LocoScript.

The package includes AnsibleCheck, the fastest LocoScript word counter. And Grease dreaded in high places, is as galling as ever. Plain-English manual included.

Request our info sheet for more details. The price includes VAT, postage and after-sales support. No extras!

Ansible Information

4 London Road, Reading, Berks, RG1 5AU Tel: 0672 62576



FOR ALL WORD PROCESSOR USERS

Tabulations Margins & Lines, positioned correctly first time

TempMate Page Overlay £5.95 (4 for £15) 4 character pitch sizes P10, P12, P15, P17

The Page Boy Word Processing Ruler £2.95 (10 for £13)

SAVE £10

SET OF 4 TEMPMATES & PAGE BOY £16.45

FOR LOCOSCRIPT USERS

TempDisc PC/PCW (Business, Personal or Sport) from £17.95 Hundreds of choices of INSTANT TEMPLATES designed by a Member of the Institute of Word Processing

Also WordDisc - a Thesaurus using LocoFile, XWorder - For Crossword Compilers using LocoScript FoneMate - Uses LocoFile, National codes and exchanges with appointment diaries, 5 year calendar etc. LocoScript Correspondance Course.

Please send for details

Thurston Techniques
FREEPOST Exmouth EX8 2YZ Telephone or Fax 0395 277496
ALL PRICES INCLUDE VAT & UK POST & PACKING





COMPUTER REPAIRS

We repair Amstrad PCW, PC, Monitors and Printers. All repairs carry a 3 month warranty.

· NEW ·

SECOND USER DEPT

· NEW

We now buy and sell Amstrad PCs and PCWs Immediate cash available for systems and non working units. We can also sell your system for you on a commission basis. All reconditioned units sold with a 3 month warranty. Optional 1 year extended warranty available

PHONE US NOW FOR DETAILS

SUREDATA

DEPT+, UNIT 6, STANLEY HOUSE. STANLEY AVENUE, WEMBLEY, MIDDX HAO 4JB (opposite Dorothy Avenue)

ASTROLOGY for beginners

Teach yourself astrology using your Amstrad

Buy a Starter Pack comprising a simple program to calculate a horoscope, an introductory booklet and 2 self-teaching programs (how to interpret the horoscope).

ONLY £12.50 No previous knowledge required For ALL Amstrads (CPC, PCW, PC, PPC)

Payment by Access/Visa, Cheque, P.O. Please state make of computer of send s.a.e. (33p - about 9" x 7") for free catalogue giving details of our wide range of programs for PROFESSIONAL ASTROLOGERS including complete natal interpretations and forecasting.

Also I CHING, GRAPHOLOGY, BIORHYTHMS, NUMEROLOGY, etc.

ASTROCALC

(Dept 8000) 67 Peascroft Road, Hemel Hempstead, Herts HP3 8ER England. Tel: 0442 251809

Brochures--Business Cards---Cartoons--Catalogues-

IF A PICTURE IS WORTH A THOUSAND WORDS

MicroDesign 2

* TYPESETTING * TEXT EDITING * PAGE LAYOUT GRAPHICS ★ FONT DESIGN ★ PRINTING

Runs on the PCW 8256, 8512 and 9512. Fully compatible with files from Huns on the PCW 8256, 8512 and 9512. Fully compatible with files from LocoScript 2, Protext, Wordstar, AMX Stop Press. The Desktop Publisher, Mini-Office Professional, ProScan, Rombo Vidi Digitiser, MasterScan and other PCW software packages. Supports most popular Mouse systems and 9 pin, 24 pin and Laser printers, including the Star LC-10 Colour Printer.

Huge range of fonts (25 built in), Typestyles and Typsetting functions. Extensive range of Graphic Art and Design facilities.

MICRODESIGN 2.....

...(£76.09 + VAT) = £87.50 With PCW (AMX type) Mouse and Through Interface ... COLOUR BROCHURE ON REQUEST. SAE appreciated.

THINK WHAT YOU CAN SAY WITH

Pro Scan

"THE MAJOR **HARDWARE** RELEASE OF THE YEAR"



ProScan is a **Professional Scanning Package**, comprising Interface Software and Hand Scanner, from Creative Technology for use with MicroDesign 2 and other programs.

A 'stand alone' package with a good selection of fonts and typefaces, text and borders can be entered directly onto a ProSCAN page and Graphics can be edited. ProSCAN supports 9 pin, 24 pin and Laser printers, it can be used with Stop Press, Newsdesk International and MasterScan. Almost any flat image can be scanned, giving high quality reproduction at up to 400 dpi, with control of brightness, contrast, grey tones and texture (dither & stipple). Compatible with Flipper.

"Sets the PCW up as a serious DTP tool." "Excellent value, excellent product". "This product has an appeal that is hard to beat...could revolutionise the way you use your PCW." "A must for anyone seriously into desktop publishing... the results speak for themselves" '8000 Plus' who awarded ProSCAN 20/20.

The ProSCAN Interface and Software are available on their own for use with any other suitable Hand Scanner, Scanner, or Amstrad FX9600 Fax Machine.

Schematics

Circuit

lumbing Layouts...Posters...Pricelists...Printed

(£155.65 + VAT) = £179

Interface, Software and Hand Scanner
Interface and Software only..... Interface, Software and Scanner Cable (for Fax)...

.....(£104.30 + VAT) = £119.95 .= £129.90

COLOUR BROCHURE ON REQUEST. SAE appreciated.

NEW

TRACEY A moulded lens with integral cross-hairs, easily attaches to your mouse and turns it into a simple Scanner......£7.95

OTHER SOFTWARE

Fun School 3

Give your child an unfair advantage! 6 multi-level structured programs in each package. "Excellent...Genuine educational value." 8000 Plus
All PCWs a) Under 5 years b) 5-7 years c) 7+ years.....Each £16.95

Flipper 2 Plus (v1.1). This new version is fully compatible with all PCW Memory Expansions up to 2 megaBytes and will allow you to flip between most programs. Flipper requires 512K, or a RamPac when used with Microdesin 2 .(£26 + VAT) = £29.90

Save £5 when purchased together with any ProScan, or a Rampac

Foreword

An essential writer's tool, **Foreword** lets you turn vague thoughts into clear words - fast. Type in your ideas, shuffle them around and flesh them out with ease. **Foreword** co-exists with either CP/M (legal) or LocoScript 2 (v 2.16 onwards), hiding in the background and then "popping up" when needed. 512K of memory is required, Flipper 2, MicroDesign 2 and Mini Office require a RamPac. **Foreword** is not compatible with some peripherals -

please check before ordering.

Foreword costs £39.95Foreword and Flipper 2 + costs £64.90

SuperDos

All the latest computers work this way

PCW SuperDos brings state-of-the-art Windows, Menus and Pointers to CP/M. Essential for the experienced user and novice alike. Requires 512K.

SuperDos Latest Version 1.02......(£25.17 + VAT) = £28.95

Leaflets---Letterheads---Magazines---Manuals



Hard Disk

AT LAST! MASSIVE STORAGE AT A MINIMAL PRICE!
Affordable. simple to install, simple to use, with superfast benefits.
The SCA Vortex Hard Disk Drive is available in four capacities, 20MB, 30MB, 40MB and 60MB. The 30MB, 40MB and 60MB versions include a free copy of LocoFile and LocoScript 2. These free-standing Hard Disk Drives come in a smart, compact, Amstrad complementary case and are mains powered. The Interface simply plugs onto the Expansion slot on the back of your computer. It has a through connector to allow the stacking of other peripherals. Optionally, at extra cost, the Interface can incorporate a 512K RamPac.

The SCA Vortex Hard Disk Drives have a fast access time of 30mS. They are supplied already formatted and partitioned into four equal areas, namely Drives C, D, E & F but this is user variable. There are two LEDs, one for Power On and one for Drive Activity.

"Comparing prices, the Vortex (SCA) disk is by far the front runner"... "A hard disk begins as a novelty and ends up as a necessity. The savings in time and energy can pay untold dividends"..."could finally bring a whole new way of working within your reach." Range of features 3/5, ease of use 4/5, installation 5/5, value for money 5/5. Total 17/20. "8000 Plus"

20 Megabyte Hard Disk Drive with Interface..........(£299 + VAT) = £343.85

With LocoFile and LocoScript 2 Bundle

30 Megabyte Hard Disk Drive with Interface.......(£360 + VAT) = £414.00
40 Megabyte Hard Disk Drive with Interface......(£420 + VAT) = £483.00
60 Megabyte Hard Disk Drive with Interface......(£530 + VAT) = £609.00

Optional : 512K RamPac built into Interface.....(£59 + VAT) = £67.85

RamPac

The SCA RamPac is the first successful Memory Expansion above 512K that does not invalidate any PCW warranty. Only RamPac is approved by Locomotive Software. RamPac simply plugs onto the back of any PCW and immediately increases the capacity of Drive M by either 512K, 768K, or 1.5mB. It is compatible with MicroDesign 2, Flipper 2 Plus 1.1 and most PCW programs. Existing owners of SCA 512K RamPacs can expand their memory to 768K themselves with our DIY Kit, or return it to us for expansion at nominal charge. Now you can copy a 720K disc in one operation!

RamPac 512K Memory Expansion	(£99 ·	+ VAT) = £113.85
	(£119 -	+ VAT) = £136.85
RamPac 1.5Mb Memory Expansion	(£199 -	+ VAT) = £228.85
DIY 512K to 768K RamPac Expansion Kit	(£22.56	6 + VAT) = £25.95

256K MEMORY UPGRADE

Upgrade your PCW 8256 internal memory to 512K with our best selling kit. Almost an essential for MicroDesign 2, LocoSpell and disc copying. Installation really is straightforward. Thousands of satisfied customers.

Simple instructions for the inexperienced. We supply top quality plug-in chips (no soldering) which are jig preformed for ease of insertion - NO BENDING REQUIRED - plus a 'Practice' chip. Simply "Plug in and Go".

PCW 8256 256K Memory Upgrade Kit to 512K(£17.35 + VAT) = £19.95

PERIPHERALS AND ACCESSORIES

* * SPECIAL OFFER - WHILE STOCKS LAST * *

Amstrad CPS8256 Interface (see below)......ONLY (£30.39 + VAT) = £34.95

CARLEC

CABLES	
PRINTER CABLE for PCW 8256/8512 (interface required)	29.95
PRINTER CABLE PCW 9512	£7.95
PCW 8256 TO AMSTRAD FX9600 FAX (interface required)	29.95
PCW 9512 TO AMSTRAD FX9600 FAX	£7.95
SCANNER CABLE FX9600 to ProSCAN Interface	£9.95
KEYBOARD EXTENSION All PCW's	£5.95
PRINTER EXTENSION PCW 8256/8512 (2 pcs) (2 metres)	£19.95

NULL MODEM CABLE Data transfer, computer to computer.....£14.95 "DONGLE" Adapts export PCW to Interface, RamPac etc..........£17.95 INTERFACES

Serial/Parallel interfaces for PCW 8256/8512 printer connection and all PCWs Data Transfer (also see LocoLink)

SCA Professional. Highly regarded, full featured (£41.74 + VAT)= £48 SCA Professional Plus. As above + real time clock/calendar.(£50.43 +) = £58 PCW MOUSE AMX type, with Interface and through connector (NB The

Kempston Mouse does not have a through connector)(£41.30 + VAT) = £47.50 DISC STORAGE Ams 10 (ten 3" discs) while stocks last.

SPARE PARTS

Some spares are available from stock, or to order. Please 'phone



Internal "Disc Drive



Yes, now you really can fit a 3." Drive B into the PCW 8256 and the PCW 9512 with our remarkably straightforward DIY Kit! No soldering, no special skills required, you only supply commonsense and a cross-head screwdriver!

THINK OF THE ADVANTAGES. ★ Professional Quality Drive ★ Costs less than a 3" drive ★ Uses cheaper, readily available disks ★ Works just like a standard 3" Drive B ★ Upwardly compatible with the new PCW with 3" disk drive - coming soon! ★ Transfer data to other 3:" drive computers ★ No obsolescent technology; disks and replacement drives will be available for years to come. NB Not compatible with Isenstein Ramdrive.

Our high quality (TEAC FD235F) 1 megaByte Drive B (720K formatted, 706K under LocoScript) is fully compatible with your existing PCW software. No extra software is required. Data Transfer Software is available; see below. Simple, comprehensive Installation Instructions for DIY.

★ FD3. 5-8 3.5" Internal Drive B for the 8256(£78.22 + VAT) = £89.95 **★ FD3. 5-9** 3.5" Internal Drive B for the 9512(£78.22 + VAT) = £89.95

EXTERNAL SWITCHABLE 3.5" DISK DRIVE

An additional Drive B for the PCW 8512, or 8256 with a second drive. Switches electronically between internal 3" and external 3\(\frac{1}{2}\) and external 3\(\frac{1}{2}\) B Drives when you insert a disc. No unreliable mechanical switching! NB Not compatible with Isenstein Ramdrive.

★ FD3. 5SW 3.5" switchable, additional Drive B.....(£100 + VAT) =£115

NB. All 3.5" Disk Drives are supplied with Shareware Transfer Software to run on a PC with 3.5" Drive, for evaluation purposes. Shareware programs require payment to authors if found useful.

MOONSTONE 2 IN 1 PCW/PC Transfer Software for any PCW. Formats a 3.5" Disk in MSDOS ready for a PC. When purchased with a Drive£24.95

Datafile 40 (holds 40 disks) £7.95.Datafile 80 (80) £9.95

Brand New Service Replacement Drives

★ FD1 500K (180K/side) repl. Drive A for 8256/8512(£68.70 +) =£79 ★ FD4A 1MB (720K) repl. Drive A for PCW 9512(£107.83 + VAT) = £124



Replacement



An AT Style, Industry Standard Keyboard for any PCW, simply plugs into the port used by the original keyboard - there is nothing else to do!

Physical and Mechanical Characteristics

Number of keys: 102 instead of 85 Separate cursor pad. Function keys for software. Separate function keys. Separate numeric keypad. Feelers on "F" and "J". Separate pull down menu keys.

Dimensions: Width 470mm, Depth 180mm, Height 40mm.

PCW AT Style Replacement Keyboard.....(£65.17 + VAT) = £74.95

Get The Fax!

Fax, Telephone, Answerphone, Copier, Printer, Fax Modem, SCANNER The Amstrad FX 9600AT is a top specification, full featured Facsimile Machine with 50 fax number memories; Telephone with 50 telephone number memories: Telephone Answering Machine; Photocopier; Computer Printer; and precision A4 wide Optical Image Scanner for use with ProSCAN.

All in one package that requires ONLY ONE telephone line (BT or Mercury). It is also a Modem for Direct Transmission of faxes from your computer.

For home, office, or one-per-desk total communications, nothing comes near it in terms of features and price.

FREE one year on-site Warranty (all faxes)

FX 9600AT Fax with Answerphone, RRP £803.85 Our Price (£534.78 +) = £615 FX 9600T As above, without Answerphone.....(£433.91 + VAT) = £499

Minimum order £10. Next day Courier Delivery £9 Bold prices include VAT and UK post. Normally by return Send cheques/Money orders: or Pic/LA/Govt orders to:

SILICON CITY

Dept 8, Postal Buildings, Ash Street, Windermere, Cumbria LA23 3EB Access/Visa orders: Telephone 09662 88707

(Coolchance Ltd)

VISA



-people!---Maps---Menus---Newsletters---Order Forms-From those really-



Martin Le Poidevin neatens up CP/M with a start-of-day menu, secures your files against corruption, and gives the dog's dinner to a spider

CPMMENU.BAS by Steve Mayer

One of the objections regularly levelled at CP/M is that it is so unfriendly. In December we published a listing that would help to change this, making your computer give you little messages instead of the bland "A>" prompt. But this did not tackle the problem of what to do with your prompt – what to type to make anything else happen. Making this

information easily available is vital if you are giving your disc to somebody who does not know your computer.

Steve Mayer's MENU.BAS program does just that, providing a menu with up to nine options on it. The user makes his or her choice simply by pressing the correct number on the keyboard – and the chosen application then runs automatically. An additional nicety is that the options do not need to be listed by their file names – each option can be described in some detail.

Like December's PROMPT.COM the program that does all this work is a CP/M command file, which means that once you have the file on disc, you do not need to load up BASIC in order to make it work. But this time the initial program is in BASIC (PROMPT.COM, if you remember, used a strange beast called 'Assembler'), and the CP/M command is created from that.

Once you have typed in (and checked and saved) the Listing, run it. The first thing you will be asked is the name of the command file you want to create. Call this something memorable – your name would do!

Next you have 60 characters with which to give the menu screen a title. Again, something friendly and memorable might be in order – "Welcome to the friendliest CP/M environment in town" or the like.

Now comes the nitty-gritty of entering details of the programs themselves. This process comes in two stages. First you are asked for the "Program name". This is what you would type if you were loading the file from the A> prompt. All the program names you use must be CP/M .COM files, but since extensions are allowed, this is no great restriction. For instance,

if you want to be able to load a BASIC program (let's call it BOOTLACE) from the menu, the syntax when asked for the "Program name" would be "BASIC BOOTLACE".

Similarly, if you have several commands you would like to join together you could make a .SUB file and use the syntax SUBMIT BOOTLACE.SUB. The only thing to bear in mind is that all the files you intend to call must be on the one disc!

The second part of the program entry is the "message". This should be a gentle reminder of the contents of the program. For instance, if the program is SuperCalc, your program name will have been SC, but your message could be "This option will load up the SuperCalc spreadsheet program".

Once you have filled all the menu slots that need filling, hit [RETURN] instead of a program name, and your new command file will be created.

The program's final fling is to ask if you want the file to be run immediately. But since it is at present on the M: drive, this is unlikely. It is important to move it onto a disc quickly so that it is not lost. The way to do this is to exit BASIC (type SYSTEM [RETURN]), insert your CP/M disc and type PIP [RETURN]. Remove your system disc, insert the disc which contains all the files you want to run from your menu, and type A:=M:BOOTLACE.COM (using your filename instead of BOOTLACE, of course, and B: instead of A: if the disc is in the B: drive).

To work the menu, all you have to do is type the name of the .COM file at the A> prompt. The natural extension is to make the disc bootable (by putting the J*.EMS file on it), and including the menu file in a .SUB file.

OOM Name (max 8 letters) Title (max 60 characters) e be using next?	MARTIN Good morning Martin. Which of these files shall
Program mame 1 or [RETURN] to finish:	FLIP2 /C
Message 1	Installs Flipper with two CP/M environments
Program name 2 or [RETURN] to finish:	FLIP2 /L
Message 2	Installs Flipper with a LocoScript environment
Program mame 3 or [RETURN] to finish:	FLIPKILL
Message 3	Knocks Flipper on the head!
Program mame 4 or [RETURN] to finish:	PROTEXT
Message 4	Installs Protext so that you can get down to wor
Program name 5 or [RETURM] to finish:	SUBMIT BASIC
Message 5	Sets up your keys and runs BASIC for you
Program name 6 or [RETURH] to finish:	BASIC TENNIS
Message 6	Runs last month's Tennis listing. Naughty!
Program mame 7 or [RETURN] to finish:	
Writing M:MARTIN.COM	
Do you want M:MARTIN.COM to be run now Dk 	(y/n) ?

Installs Flipper with two CP/M environments

Installs Flipper with a LocoScript environment

Installs Flipper with a LocoScript environment

Knocks Flipper on the head!

Installs Protext so that you can get down to work

Sets up your keys and runs BASIC for you

Runs last month's Tennis listing. Naughty!

EXIT to CP/M

Press a key | |

to know is entered here. The .COM file is then written

The finished menu. Notice that the computer automatically adds option '0', which will take you back to C/PM

10 PRINT "COM Name (max 8 letters)"; TAB(42)	14B3
20 INPUT "", com\$:com\$="M:"+UPPER\$(com\$)+".COM"	143C
30 PRINT "Title (max 60 characters)"; TAB(42)	14E9
4Ø INPUT "", title\$:title\$=LEFT\$(title\$,6Ø):L=LEN(title\$)	1C88
50 FOR n=1 TO 9	Ø65F
60 PRINT :PRINT "Program name";n; "or [RETURN] to finish: "; TAB(42)	239B
70 INPUT "", prog\$(n):IF prog\$(n)="" THEN 100	125D
80 PRINT "Message";n;TAB(42):INPUT "",m\$(n)	135C
90 NEXT	Ø48F
100 PRINT :PRINT "Writing ";com\$;"";	1299

The program begins by immediately asking for your inputs. Housekeeping comes later

110 last=n-1	Ø51D
120 CR\$=CHR\$(13)+CHR\$(10):e\$=CHR\$(27):t\$=CHR\$(9):s\$=SPACE\$(6)	1620

13Ø	cl\$=e\$+"E"+e\$+"H":rev\$=e\$+"p":rof\$=e\$+"q"	ØE89
140	m\$(last+1)="EXIT to CP/M"	ØB91
150	final\$=CR\$+CR\$+CR\$+CR\$+t\$+t\$+s\$+"Press a key \$"	15DE
160	hL=INT(3Ø-L/2)	Ø63E
17Ø	title\$="* "+SPACE\$(hL)+title\$+SPACE\$(60-L-hL)+" *"	1480
	title\$=c1\$+CR\$+t\$+s\$+e\$+"r"+title\$+e\$+"u"+CR\$+CR\$+CR\$	16E3
	Lm=LEN(title\$):a\$=SPACE\$(50)	ØDB8
	FOR n=1 TO last	Ø8AA
210	b\$=a\$:LSET b\$=prog\$(n):prog\$(n)=b\$	1176
220	$prog\$(n) = prog\$(n) + CHR\$(\emptyset)$	ØCØ7
23Ø	m\$(n)=t\$+s\$+rev\$+STR\$(n)+" "+rof\$+t\$+m\$(n)+CR\$+CR\$	1382
	Lm=Lm+LEN(m\$(n)):NEXT	ØABF
25Ø	m\$(last+1)=t\$+s\$+rev\$+" Ø "+rof\$+t\$+m\$(last+1)+final\$	1240
	Lm=Lm+LEN(m\$(last+1))	ØB63
	Lm=Lm+355:Lm1=Lm MOD 256:Lm2=INT(Lm/256)	1348

This is the housekeeping section. It also carries out all the calculations required - for instance, to determine the length of lines

28Ø OPEN "O",1,com\$	Ø68F
29Ø GOSUB 38Ø:PRINT #1,CHR\$(last+49);	ØF92
300 GOSUB 380:PRINT #1,CHR\$(Lm1);CHR\$(Lm2);	125F
31Ø GOSUB 38Ø:PRINT #1,title\$;	ØD3Ø
32Ø FOR n=1 TO last+1:PRINT #1,m\$(n);:NEXT	1374
330 FOR n=1 TO last:PRINT #1,prog\$(n);:NEXT	156B
340 CLOSE	Ø41F

The lines from 280 to 340 are the lines that write the program to disc, using familiar Jetsam functions

350 PRINT :PRINT :PRINT "Do you want "; com\$; " to be run now (y/n) ? ";	2255
36Ø z\$=UPPER\$(INPUT\$(1)):ON INSTR("NY",z\$)+1 GOTO 36Ø,37Ø,49Ø	17CC
370 END	Ø374
380 READ x\$:IF x\$="*" THEN RETURN	ØFED
390 hexnum=VAL("&H"+x\$):PRINT #1,CHR\$(hexnum);	184B
400 GOTO 380	Ø4BE
410 DATA c3,03,01,0e,09,11,63,01,cd,05,00,1e,ff	ØEB9
420 DATA 0e,06,cd,05,00,fe,00,ca,0b,01,fe,30,da	ØF97
430 DATA 0b,01,ca,57,01,fe,*,d2,0b,01,21,*,11	ØD1B
440 DATA 33,00,d6,30,3d,fe,00,ca,36,01,19,c3,2c	ØEC6
450 DATA 01,e5,cd,4e,01,d1,01,80,00,1a,02,03,13	ØEØB
460 DATA fe,00,c2,3e,01,0e,2f,1e,ff,cd,05,00,0e	1006
470 DATA 09,11,5f,01,cd,05,00,c9,cd,4e,01,0e,00	ØEA5
480 DATA cd, 05, 00, 1b, 6c, 0d, 24, *	ØA2E

Although our program is in Basic, the CP/M file must be in machine code. The numbers are that code - they are what actually makes the menu work!

490 'Run the CP/M file	Ø9AC
500 RESTORE 550	Ø6EA
510 com\$=com\$+CHR\$(0)	Ø82A
52Ø FOR n=1 TO LEN(com\$):POKE 127+n,ASC(MID\$(com\$,n,1)):NEXT	1B7B
53Ø FOR n=Ø TO 11:READ k:POKE 5ØØØØ!+n,k:NEXT	1345
540 z=50000!:CALL z	Ø724
550 DATA 14,47,30,255,205,5,0,201,0,0,0,0	ØB88

The final line of the program is another stream of machine code - which makes the menu run from the M: drive, if you so wish

BYTESIZE.BAS by David Miller

Although it is only 12 lines long, David Miller's little utility program packs a real programming punch. With these twelve lines you will be able to set a file so that it can only be read (and not erased, written to or otherwise amended); set a file so that it is a system file (a LocoScript 'hidden' file, that will not be displayed by CP/M's 'DIR'

command, and thus not clog up your display); and assess quite accurately the size of a file. All this from Basic.

How does the program do this?

Basically we are dealing with the vital part of your computer's memory called the File Control Block. This stores details of the file which is being considered – its drive, name, number

and other details that the operating system needs to have to hand.

The first thing we have to do is read in the name of the program we wish to investigate. This has to be changed within the Listing itself, in line 140. At the moment it is set up to deal with itself, but it could be set to any file on the current disc. Make sure that for

A silly thing to do. Having set the program to make the file Read Only it will not be deleted. But reset it, and you'll have to be careful!

> your first experiments this is a file that you do not desperately need, or at least one which has a back-up elsewhere!

Change line 140 by typing EDIT 140 [RETURN], and substituting the name of the file, with its filetype, between the inverted commas. There are a few points to notice here. We are working at a very exposed level of computing, and many of the usual safeguards are missing. For instance, CP/M usually converts small case letters to upper case. Not so here.

So you must put the name in capitals, you must have 11 characters, made up of the file name (padded out with blanks if necessary) with the filetype (eg BAS or COM) as the final three letters; and you must omit the full stop between name and filetype. Thus "D COM" is valid, but "DCOM" and "d .com" are not!

Line 160 reads this into the FCB (line 150 sets the drive as "default" ie, the one you are using anyway). Line 170 does the business, and using an

internal CP/M function collects the size of the file, and returns it to a special place in the FCB (in our terms, fcb%+33). From there it can be read in line 180 using 'PEEK'.

However, the measurement may be in terms unfamiliar to you. This is because our function returns size not in terms of Kilobytes or 'k's (a unit of 1000 bytes, or pieces of information), but in terms of 'blocks'. A block is a mere 128 bytes long (CP/M also calls them records – try typing DIR [FULL] next time you are at the CP/M prompt with your system disc).

If you want the size of your file in terms of 'k's, then it is easily calculated by multiplying by 128 and dividing by 1000. For instance, BASIC.COM is 224 blocks long, which is 28.672 k. The DIR [FULL] command shows, less accurately, 28k.

Lines 190 and 200 also need explanation. CP/M knows that a file is to be considered a system file very sneakily - by adding 128 to the value of the second character of the filetype. In our Listing, the second letter of the filetype is A (BAS), it has an ASCII value of 66 (all the CP/M characters have codes, which is how the computer stores them - the whole set is in the back of your manual - page 113 for the 8000 series and page 547 for the 9512). If it were set as a system file, it would be stored as 194, although it is never displayed as such - CP/M knows to convert it back to "A".

But that is what line 190 does – it adds 128 to the second character of the filetype; line 200 simply cements that in memory, and the last two lines of the program (which can be omitted) create a special .SUB file, restart CP/M (in what

is known as a 'warm boot'), and execute the same .SUB file. In fact, this file has only got one command in it – DIRS, which shows all the system files. These will include, hopefully, the one you have just created.

Omitting lines 210 and 220 simply leaves you in Basic, rather than quitting to CP/M – a much better idea if you trust that the program has done its job!

Setting a file to Read Only (RO) follows exactly the same procedure, except that it is the first character of the filetype that has 128 added to it. Change line 190 to read 'r.o%' instead of 'sys%' at both occurences, and run the program exactly as before.

When all is done, try erasing the processed file. You will come up against error messages galore!

The only thing that now remains is to reset the files. A bit mind bending, but not difficult. The important thing to remember is that the file you need is no longer "BYTESIZEBAS", but BYTESIZEB[original character with 128 added to it]S. The easiest way to cope with this is to use a chr\$() statement. In the case of our system file, therefore, the filename will be f\$="BYTESIZEB"+chr\$(194)+"S". A Read Only BASIC.COM would become "BASIC "+chr\$(195)+"OM". All that then needs to be done is to change line 190 to r.o% or sys%, depending on which you want to change, and to change (very important this!) the plus sign to a minus before the "128"

Purists will tell you that the CP/M "SET" command will do all this equally well. True, but this way you can do it from Basic, see what's happening, and still preserve those vital files from premature extinction!

ØB8E

170 does the business, and using an special .SUB file, restart CP/M (in what	premature extinction!			
100 MEMORY HIMEM-10: bdos!=HIMEM+1: code!=HIMEM+5	17A4			
110 fcb%=92: r.o%=fcb%+9: sys%=fcb%+10: size%=fcb%+33	14A1			
These lines set some of the important variables. fcb% is the location of the FCB, r.o% of the Read Only	y byte, sys% of he System byte			
12Ø FOR i%=1 TO 9: READ h%: POKE HIMEM+i%,h%: NEXT	1632			
130 DATA 17,92,0,14,35,205,5,0,201	ØA17			
140 f\$="BYTESIZEBAS"				
150 POKE fcb%,0	Ø6ØB			
These lines read the name of the file into the the FCB. Make sure it has 11 characters a	and no full stop!			
16Ø FOR i%=1 TO 11: POKE fcb%+i%, ASC(MID\$(f\$,i%)): NEXT	17D2			
170 POKE code!,35: CALL bdos!	ØC39			
The internal function used in line 170 (bdos 35) computes the size of the file, and puts it int	to its slot in the FCB			
18Ø PRINT f\$;" is"; PEEK(size%); "blocks long"	1460			
190 POKE sys%, PEEK(sys%)+128	ØDC7			
200 POKE code!, 30: CALL bdos!	ØC1C			
At the moment, the program will set BYTESIZE as a system file. Changing sys% to r.o% in line 190 w	ill make BYTESIZE Read Only			
210 OPEN "O",1,"\$\$\$.SUB": PRINT #1," DIRS": CLOSE 1	142D			

The final two lines create a "\$\$\$.SUB" file which will run after the system is warm-booted in line 220. bdos 0 is the function that forces the reboot

220 POKE code!,0: CALL bdos!

SPIFLY.BAS by Jack Burbage

And finally, after all that intense operating system investigating, here's a nice little something from Mr. Jack Burbage. You don't have to do anything, just sit back and wait until the spider gets its dinner.

Like Robert the Bruce, this spider knows that if at first you don't succeed...beep and try again! After a while it gets quite hypnotic. At each go the page is redrawn, with the spider and the fly repositioned randomly; eventually the fly will hit the web, and an appropriate message appears. Of course, you can change that message to whatever you want - but make sure it's tasteful.

Because of its random nature, this could well prove the ideal executive toy: "I'll do it when the spider's eaten!"



The spider looks hungrily at the fly. This time it's close - but where will it be next?

10	e\$=CHR\$(27):B\$=CHR\$(7):C\$=e\$+"E"+e\$+"H":S\$=CHR\$(220)+e\$+CHR\$(4)+CHR\$(221)	1A47	
2Ø	<pre>lwing\$=CHR\$(221):rwing\$=CHR\$(220):head\$=e\$+CHR\$(0):body\$=CHR\$(164)</pre>		
	:web\$=CHR\$(149)	2452	
3Ø	DEF FNat $(r,c)=e$+"Y"+CHR$(32+r)+CHR$(32+c):RANDOMIZE (PEEK(64504!))$		
	:PRINT C\$	1EDC	
40	INPUT"'SPIFLY' by Jack Burbage. Press [RETURN] to start", start\$:PRINT C\$	2988	
5Ø	y=INT(RND*25):x=INT(RND*84):z=x:FOR Y=1 TO y:PRINT TAB(x+Ø.5)web\$:NEXT	25E4	
6Ø	PRINT TAB(x)S\$;B\$:PRINT TAB(x+Ø.5)CHR\$(178)	1384	
7Ø	r=INT(RND*25):c=INT(RND*84):PRINT FNat\$(r,c)head\$:PRINT FNat\$(r+1,c)body\$	238D	
8Ø	FOR W=1 TO 20:PRINT FNat\$(r+1,c-1)lwing\$;FNat\$(r+1,c+1)rwing\$:		
	SWAP lwing\$,rwing\$	29A9	
9Ø	IF C=Z OR C=Z-1 OR C=Z+1 THEN IFr<=yTHEN PRINT STRING\$(15,B\$)FNat\$(29,42)		
	"GOTCHA": END	2758	
100	NEXT:PRINT C\$:GOTO 50	ØDA1	

If you (or other people) get fed up with the beep, change CHR\$(7) in line 10 to CHR\$(0)

GLITCH ALERT!

Oh dear. Glitches have been sighted again in the Listings pages.

February's Listings included the mindboggling PCWTEXT program.

Mindboggling for two reasons: firstly we managed to call a block with four sides and four corners a 'triangle' (the 8000 Plus team are still stuck on squaring the circle, let alone rectangling the triangle);

secondly because when the program is run, these small rectangles tend to become displaced, and pick up a stream of trailing hash marks. This totally destroys any clever graphics you may have designed.

The solution, arrived at after much consideration, is to retype lines 330 and 340 as follows:

330 IF dat\$(acc,p)<>"#" THEN GOTO 340 ELSE PRINT #1,i\$;:GOTO 360

340 IF dat\$(acc,p)<>"" THEN GOTO 350 ELSE PRINT #1," ";:GOTO 360

Apologies to all involved, and many thanks to those who suggested many varied escape routes!

BELTER2.BAS

Many moons ago we published a Listing called "BELTER.BAS", a basic analysis program which provided information on any program run through it - the number of different variables used, how many times each of them appeared, where and how often all the commands were used, and so on.

However, there were some problems with it. Not least of these were the fact that it could not deal with programs of any great length.

Dr.Arthur Baker, however, wouldn't let it lie, and has been working away to improve the original. The result of his efforts is BELTER2.BAS, which ought to be able to deal with just about any Basic programof whatever size.

Unfortunately, the improvement has taken the size of the program beyond anything that could be printed in Listings. However, we are prepared - just this once, mind you - to copy it on to any blank, formatted discs that arrive at the 8000 Plus offices accompanied by an adult SAE (even better, a jiffy bag). Please mark your requests with "BELTER.BAS" on the outer envelope.

How to type in a listing:

The first thing to do is to boot up CP/M, by loading the disc into the machine at turn-on time; when it settles down type in the word BASIC and hit [RETURN]. You will be given a bit of information about Mallard BASIC, and the prompt "Ok". You can now begin to type in the program.

Each line begins with a number. This must be typed in, along with the text that follows it, but not the list of numbers on the right hand side (these are part of a checking procedure we publish from time to time). Make sure that what you type is exactly what is on the page, especially in terms of punctuation. One semi-colon instead of colon may not seem much to you, but it could spell disaster for the program. Be careful, as well, that you differentiate properly between "0" (the number zero) and "0" (the capital "0"), and between "1" (the number "1") and the lower case "L". From such small errors, great crashes flow.

If you do spot an error in a line as you are typing it in, use the cursor keys to go back and amend it. Once you are sure that a line is typed in correctly, then hit the [RETURN] button and go on to the net one. If you subsequently notice a mistake, type "edit", followed by the line number and [RETURN], and you will be given the chance to make your correction. Once you have typed in the whole

program, check that everything is there as it should be by typing "list" [RETURN]. The whole program will scroll past you. To stop it at any point press [f5], and to restart it press [f5] again.

If all is present and correct, save your program to disc by typing "save" followed by the program name, which must be in quotation marks. Now comes the moment of truth. Type run [RETURN]. If all has gone well, it will work first time.

If not, you may be given an error message, often with a line number attached (which may or may not help – it can often be that the line over which the computer gets stuck will be perfectly OK in itself, but it just happens to be the point at which an earlier mis-type becomes critical) so that you can rectify the fault. If there is no fault there, or no line number, check the rest of the program with a fine toothcomb.

And if you have made any changes or improvements, don't forget to save the updated version of the program (use the same filename and the old, bugged version will automatically be deleted from the disc).

When you want to use the program again you must first load BASIC as before, the type: "LOAD "filename" [RETURN]. It can then be used as before, by typing RUN [RETURN].



year

please use a photocopy of this coupon or

enclose full details on plain paper. Thank you

Access



Expiry date: month

signed



The Good Club & Training Guide

With such a variety of software for the PCW currently on the market, learning how to get the best out of your machine can often seem to be a daunting treck through poorly-written manuals and stodgy jargon.

For the would-be LocoScript, CP/M or BASIC expert, a PCW User Club can provide an ideal source of knowledge. An informal atmosphere can be very productive – and there's no better way to learn than with the one-to-one help of an expert.

Alternatively, you could recruit the aid of such an expert to your home, or attend specialised courses part-time in colleges and schools.

Below is a selection of clubs and training organisations which can offer such help. Why not make contact; it could be an inexpensive, effective way to a better understanding of what your PCW can do for you.

Clubs

York Amstrad Computer Club Enterprise Social Club, 17 Nunnery Lane, York (address for meetings only) Enquiries: Simon Williams 0906 40164

Scotwest.PCW

19, Porton Place, Old Greenock Road, Bishopton, Scotland Enquiries: Iain Lang 0505 863916

Ground Floor User Group

Holme Street, Hebden Bridge West Yorkshire Enquiries: Jae Campbell 0422 844991

Retford PCW User Group

14 Machin Close, Tuxford, Nr Newark Nottinghamshire NG22 OJZ Enquiries: **Paul Tew 0777 870038**

CP/M and MS DOS User's Group 43 Birkbeck Road, Wimbledon, London SW19 8NZ

Enquiries: David Nesbitt 081 543 0824

Hampshire PCW User's Group Unit 5, Cable Street, Northam,

Southampton, Hampshire (address for meetings only) Enquiries: **Paul Day** (above address) **Hereford Computer Club**

18 Church Street, Hereford Herefordshire HR1 2LR Enquiries: **David Rose 0432 267123**

Teesside Amstrad User Group

8 Knayton Grove, Greenvale, Stockton-on-Tees, Cleveland TS19 7RW

Enquiries: Gladys Baker 0642 580018

M25 User Group

58 Islip Gardens, Northolt Middlesex UB5 5BY Enquiries: **Tony Brown 081 841 3666**

Littlemore Amstrad PCW User Group Peers School (Adult Education Centre), Littlemore, Oxford Enquiries: R G Hughes 0865 242720

The Worldwide Amstrad Computer Club (WACCI)

9 South Close Twickenham TW2 5JE Enquiries: **Steve Williams** (see above)

Training

Banna Word Processing

29 New Bond Street, London W1Y 9HD Subjects: Loco 1&2, SuperCalc, Enquiries: **071 493 3336**

Computer Training Centres UK Ltd

Exchange Buildings, Upper Hinton Road, Bournemouth BH1 2HH Enquiries:0202 299676

Dynamic Sales and Training

47 Goldsworth Road, Woking, Surrey Subjects: LocoScript 1 & 2, dBase, dBase II, SuperCalc 2 Enquiries: 0483 756914

Headline Communication Ltd

PO Box 22, Hereford HR4 8UW Subjects: LocoScript 1 & 2, CP/M, dBase II, SuperCalc 2 Enquiries: 0432 271598

Horsham Office Skills Training

Unit 2, 24 London Road, Horsham, West Sussex RH12 1AY Subjects: LocoScript 1 & 2, Wordstar Enquiries: 0403 211440

John S Blandford

15 St Albans Road, Sandridge, St Albans, Herts AL4 9LA Subjects: LocoScript 1 & 2, LocoMail,

Mallard BASIC Enquiries: 0727 59913

Linkom Training

32 Hill Street, Totterdown, Bristol Subjects: LocoScript 1 & 2, Sage Accounts

Enquiries: 0270 717435

No Hassle Computing

36 Tantallon Road, Balham, London SW12 8DG Subjects: LocoScript 1 & 2, Supercalc, Cracker, Masterfile 8000 Enquiries: 081 675 3139

Molesley Education

Flat 3, 10, Matham Road, East Molesley Subjects: LocoScript 1 & 2, Loco PC Enquiries: **081 941 1364**

Office International

247-257 Euston Road, London NW1 2HY Subjects: LocoScript 1 & 2, Cardbox, NewWord, Supercalc 2, Sage Accounts, LocoMail Enquiries: 071 387 9339

Off the Shelf Training Services

5a West Street, Bognor Regis, West Sussex, PO21 1UB Subjects: LocoScript 1 & 2, LocoMail Enquiries: 0243 827778

Rodesign

195 Milwards, Harlow, Essex CM19 4SJ Subjects: Micro Design, ProScan Enquiries: 0279 444313

Victoria College

13 Dalton Square, Lancaster, LA1 1PL Subjects: Loco 1&2, Supercalc, dBase, WordStar, Sage Accounts, Stop Press Enquiries: 0524 33996

Wetherby Office Training

Cambridge House, 39 Cambridge St., Wellingborough, Northants NN8 1DW Subjects: Loco 1&2, dBase, Supercalc 2 Enquiries: **0933 222400**

Wetherby Price Training

30 New Canal, Salisbury, Wiltshire Subjects: LocoScript 1 & 2, CP/M, Sage Accounts Enquiries: 0722 24005 Stop Press!

The latest training centres!

Fields Easy
Computer Training
16, Moyclare Park
Baldoyle, Dublin 13
Ireland
Subjects: Loco 2,
Loco PC, Micro
Design, Sage
Accounts, Money
Manager
Contact: 088 561291

Computer Services (Kent), 2 Church Road Business Centre, Sittingbourne, Kent ME10 3RS. Subjects: Loco 2, LocoFile, LocoMail, Supercalc 2, Money Manager, MicroDesign. Contact:0795 421732

Westwind Computer Education Centre, 13b Church Street, Wellington, Telford Subjects: Loco 2, LocoMail, Protext, Supercalc 2, Masterfile, dBase 2 Contact: 0952 56573

Electric Words 232 Arbroath Road Dundee DD4 7SB Subjects: Loco 1&2. Loco PC Contact: 0382 462640

April 91 67

Tipoffs

The best PCW advice anywhere!

Is LocoScript making you feel a fool? Does BASIC keep playing tricks on you? Find CP/M a bit of a joke? Don't be an caught out, read Tipoffs, the best way to have the last laugh on a troublesome PCW. In these pages you'll find invaluable advice and help on LocoScript, LocoFile, LocoMail, BASIC, Mini Office, Micro Design and a whole lot more. To show we're not joking, John Eade of Salisbury is getting a cheque for £30 for his smart LocoScript tip. If you've found a way to trick any well-known program into doing something useful that it never thought it could, tell us - the best win hard cash. Send them to Tipoffs, 30 Monmouth St, Bath BA1 2XF. It's Freepost!

Vertical software

You can get "vertical printing" easily in LocoScript. Type the text as normal. Then set a right tab at the far right hand side and immediately before the text, press [ALT] [TAB] then [RELAY]. The text aligns down the page one letter to a line.

Can anyone think of a use for this?

J Coleman, Penkridge, Stafford

8000 Plus: How about preparing labels for the spines of thin booklets, discs or cassettes? When a disc is in the drive you wouldn't than have to crook your neck to read it. Unfortunately this won't work in LocoScript 2, so those Chinese characters you designed in Locochar will have to carry on going right to left and downwards.

Screen printing

Last month you published a tip showing how in a BASIC program you can print something to screen, printer and a file simultaneously ("In triplicate", p. 73). Here is another way of doing it. Just run the following BASIC listing and thereafter all PRINT # commands go to screen and printer as well.

- 10 REM Daniel Evans wrote this
- h=HIMEM: be=h-30: MEMORY be-1
- r1=be:r1c=r1/256:r1b=INT(r1c) : r1a=256 * (r1c-r1b)
- 40 FOR n=r1 TO r1+28 : READ d : POKE n,d: NEXT
- 50 DATA 229, 213, 197, 245, 205, 116, 94, 205, 100, 94, 241, 193, 209, 225, 205, 116, 94, 229, 213, 197, 245, 205, 90, 94, 241, 193, 209, 225, 201
- 60 IF PEEK (337) = 50 THEN ap=24162: GOTO 80
- 70 ap=24328 : POKE r1+5,26 :

POKE r1+6,95 : POKE r1+8,10 : POKE r1+23,95

80 POKE ap,rla: POKE ap+1,rlb

So, if you now have lines like 1000 OPEN "O",1,"A:OUTPUT" 1010 PRINT #1,"This is a message" 1020 CLOSE

then the message This is a message is sent to the file A:OUTPUT, the screen and the printer, all at the same time. This works on the PCW9512 as well as the PCW8256/8512.

To return to normal, type POKE 24162,116: POKE 24163,94 on the 8000s or POKE 24328,26 : POKE 24329,95 on the 9512. Daniel Evans, Putney, London

8000 Plus: Thanks. In last month's listing for the tip "In triplicate", by the way, it should have said DISPLAY instead of TYPE - sorry!

POKE r1+9,95 : POKE r1+15,26 : POKE r1+16,95: POKE r1+22,0:

Morse inspector

Alarming tip

as doubtful.

be dealt with.

next word comes up.

If you're spell checking a long document in LocoSpell - especially one that has been checked before and may only have a couple of doubtful words in it - you can have a very long wait between words that are flagged up

But you can make the PCW beep

at you when a word comes up, letting

you go away and make a cup of tea or

whatever. After pressing [RETURN] to

start LocoSpell on it way, press [EXIT] and walk away. When it comes to a

word, it'll then try to do something

with that [EXIT] you pressed; and,

[EXIT], will beep in frustration -

because LocoSpell won't allow you to

alerting you that it's found a word to

Similarly, after dealing with each doubtful word, press [EXIT] again, and

you'll get another alarm call when the

B Dimmock, Burgess Hill, W Sussex

I've tried to type in the enclosed morse code program from an edition of Practical Wireless on the PCW but it doesn't work.

J Rider, Rugby, Warwicks

8000 Plus: The BASIC program you sent won't work on the PCW because it has commands that the PCW's BASIC - Mallard - lacks. 8000 Plus published a program to beep out any message in Morse in issue 12 (September 1987). If anyone wants a photocopy, send us an sae marked 'Morse code'.

Happy memories

Working in LocoScript's M drive makes everything much faster - but if you forget to copy the files before you switch off then you lose all your work.

Absent-minded types might therefore find it useful to stick a small piece of card over the on/off switch with a piece of blu-tack that says "Save memory file before turning off!". WJ Bickers, Bury St Edmunds, Suffolk

Condensed plot

When printing an ASCII file in CP/M, how can I get it print out in 17 pitch instead of the usual 10 pitch? P Chambers, Plymouth, Devon

8000 Plus: Here are two ways of printing out an ASCII file in CP/M. Say the file is called READ.ME. 1) At the A>, press [ALT] p (the PCW beeps) and then type type read.me [RETURN] The printer prints out the contents of READ.ME in 10 pitch. When it's finished, press [ALT] p again (the PCW doesn't beep). 2) With a disc containing PIP.COM and READ.ME in the drive, type pip lst:=read.me [RETURN] again the printer uses 10 pitch.

To change the printer to make it print in condensed instead of the usual 10 pitch takes two steps. 1. First make a file called say

CONDENSD which contains the single line

115'

(the arrow is [EXTRA]u). You can make the file using PIP as follows. With a disc containing PIP in the drive, type

pip condensd=con: [RETURN] and then

↑'15' [RETURN] [ALT]j [ALT]z and when the A> reappears the file has been created.

2. Insert a disc into the drive that contains both SETLST.COM (side 2 of your master disc on an 8256/8512) and CONDENSD. Type at the A> setIst condensd [RETURN]

From now on until you switch off, all output on the printer will be in 17 pitch (unless a CP/M program changes it, of course).

To reset to normal, press [PTR] [left cursor] [+] [EXIT].

Between sheets

The sheetfeeder supplied with the PCW9512 will automatically feed a new sheet of paper after finishing a document. If you want to print the next document on a different type of paper headed instead of plain paper perhaps don't try to remove the sheet in the printer. Instead, put a blank first page in your next document with [ALT] [RETURN] and change the paper in the tray before printing. That way the paper that was in the printer is blank and can be re-used, while the document itself prints out on the correct paper. Graham Johnston, Bothwell, Lanarkshire

68 April 91

Well phrased

I understand it is possible to do very sophisticated things in Protext phrases but I'm not sure how. Can you give some examples?

Martin Flanagan, Workington, Cumbria

8000 Plus: Consider the effect of the following three phrase assignments typed in at the a> prompt: key b 124 lb [RETURN] key c 'clear 113 ly' [RETURN] key e '1254 lsw 113 lclear 113 ly 1254 lt env 113 lt [RETURN]

The first makes [EXTRA]b insert the code for bold in the text. The second makes [EXTRA]c clear out the file in memory. The third is quite involved. Suppose you have marked out the recipient's address at the top of a letter as a block, and on the disc have a file called ENV which has margins set up for printing on envelopes. If you just press [EXTRA]e, the program will print out that address on an envelope for you with the right margins.

The table below should explain. It has the codes for use in phrase files, when they must be put in between two up arrows ([EXTRA]u or [EXTRA] semi-colon). (They can also be used in exec files when they must be put in between two vertical line characters). Note that a great deal of things in Protext can be done either by a key like [RELAY] or by a command sequence like [ALT]f. Both of the alternatives are given here.

Key Code Effect sequence

sequence		
[ALT]@	0	beginning of sequence on block or unit marks
[ALT]a	1	swop two characters
[ALT]b	2	switch box mode on/of
[ALT]c	3	centre line
[ALT]d	4	insert default ruler
[ALT]e	5	delete to end of line
[ALT]fo	r	
[PARA]	6	format paragraph
[ALT]g	7	goto (Page, Line or
		Column number)
[ALT]h	8	help
[ALT]i	237	insert blank line
[ALT]j	10	turn justificationon/off
[ALT]k o	or	
[CAN]	11	erase block markers
[ALT]I	12	go to cursor position before last big jump

[ALT]m	or	
The comment of the comment		move block to current
[]		cursor position
[ALT]n	14	introduce hard hyphen
[TILL]		or hard space
[ALT]o	15	move block from
[ALI JO	13	other file
[ALT]p	226	turn page mode in bar at
[ALI JP	220	top of screen on or off
IAITI.	17	
[ALT]q	17 18	scroll up full screen restore previous ruler
[ALT]r	10	line
[ALT]s	19	show spaces as faint
		triangles on screen
[ALT]t	20	show tabs and
		[RETURN]s as arrows
[ALT]u	21	restore last deleted
		piece of text
[ALT]v	22	insert arrow symbols
[1121]		(with cursors) or
		hide/show printer codes
		(by pressing v again) or
		turn help off (press h)
[ALT]w	23	turn word wrap on or off
	24	introduce printer control
[ALT]x	24	code
[ALT]y	25	swop to other document
[ALT]z	26	scroll down full screen
[TAB]	9	insert tab
(SHIFT)		
[TAB]	228	move to next tab position
Constitution of the		(swop the above if in
		overwrite mode)
[ALT]		
[TAB]	225	turn insert/overwrite
[IIID]	220	mode on/off
$ DEL\rightarrow $	16	delete character under
[DLL-7]	10	cursor
[DEL←]	127	A STATE OF THE PARTY OF THE PAR
[DEL-]	12/	delete character before
(CHIET)		cursor
[SHIFT]	220	111
	229	delete word right
[SHIFT]		
	211	delete word left
[ALT]		
$[DEL \rightarrow]$	5	delete from cursor to
		end of line right
[ALT]		
$[DEL\leftarrow]$	212	delete from cursor to
		end of line left
[ALT]		
[CAN]	230	delete whole line
	The Park	

T	240	cursor up
1		cursor down
←		cursor left
\rightarrow		cursor right
[SHIFT]	Ť	
[Sim 1]		move one line up
[SHIFT]		more one line up
[Silli 1]		move one line down
[SHIFT]		move one line down
[SHIFT]		mous on a word Ist
CHIET		move one word left
[SHIFT]		mous on sword risks
TATTIT	24/	move one word right
[ALI]	240	move almost one
rarm I	240	screenful up
[ALI] \psi	249	move almost one
		screenful up
[ALT]←	250	move to left hand
	2001	edge of line
$[ALT] \rightarrow$	251	move to right hand edge
		of line
[ALT] <	or [A	LT]
[PARA]	218	go to beginning of
		paragraph
[ALT]>	or	
[PARA]	219	go to end of paragraph
[ALT](o	r [AL	.T]
[PAGE]	220	go to beginning of page
[ALT]) o		
		go to end of page
[ALT][c		
[DOC]	27	go to beginning of
•		document
[ALT]] o	or	
		go to end of document
[ALT]*	222	split line at cursor
		join line at cursor
[ALT].		convert to lower case
		convert to upper case
[ALT]-		
[ALT] [S		
[ALI] [S		no effect!
IDETIID		по ејјеси:
[RETUR		
LATTIER		insert return
[ALT][R		
or[SHIF		
	236	move to beginning of
		next line
[+] or		
[COPY]	224	recall last command
		typed which had four
		letters or more
[STOP]	or	
[EXIT]	252	change edit/command
		mode
		enter edit mode
	254	enter command mode

To use these in an EXEC file, make a file called say XYZ with the codes in bars (/). Then at the a> type x xyz and the commands will be executed.

Dumping ground

On a PCW8256 or 8512 you can get an image of the screen on the printer by pressing [EXTRA] [PTR]. Is it possible on a 9512?

K Burrow, Newcastle, Tyne & Wear

8000 Plus: Not on the daisywheel printer (though I have a seen a BASIC listing that will do it, making up a large image of the screen with hundreds of full stops – and this isn't an April fool). However, if you have a dot matrix printer, you may be able to do it using PCW World's SW101 disc. Details from them on 0384 66269.

Clear headed

Diagrams of chemical structures can be produced very easily in a desktop publisher such as Micro Design.

The trick is that even the most complicated organic molecules are made up of simple components. So, create a number of "area files" each of which contains one grouping - a particular radicle, benzene ring or CH₃ group for example.

To make a structure, load each unit in turn onto the "page", move them to the desired position, and insert the bonds by drawing single or double lines as usual.

[PASTE] 238 move block to current

cursor position

[SHIFT] [+] or [SHIFT] [COPY] 233 set block markers

[ALT] [CUT] or [CUT] 232 cut block [ALT] [COPY] or [COPY] 234 copy block

[ALT]m or

If it sounds a bit of a headache, it isn't - and the diagram of the molecule for aspirin shown here should prove the point!

Dr M Thomas, Newport, Gwent





Head ache

I have a PCW8512 and 9512 but find that discs from the B drive of the 8512 are not accepted on the 9512: it refuses to read them, giving a 'disc mark missing' message, even though the discs can still be read on the 8512. It seems that the positions of the drive read heads are slightly different; is it possible to adjust them?

J Cherry, Kendal, Cumbria

8000 Plus: I don't know of a simple solution I'm afraid, apart from trying again and again. Can anyone help?

Graphic demonstration

In the user manual of my 8256 there is a section on controlling the graphics output of the printer. But it's gobbledygook and explains nothing! I want to be able to create and print sets of graphics from BASIC programs with text as well. Can you explain? Kevin Sale, Castle Vale, Birmingham

8000 Plus: The basic idea is this. The BASIC command lprint chr\$(27) + "L" + chr\$(50) + chr\$(0) followed by a series of digits in chr\$()s will get the printer to print out a fifty-dot-wide line of graphics (not on a 9512) whose shape is determined by the digits.

You can make it print any width you like other than 50, and by putting several graphics lines together, can build up a picture of any size (less than 960 dots, which is the limit of the printer anyway).

The first thing to do is your design. Suppose you want a musical symbol for your club newsletter. Draft out your design on graph paper; then fill in squares so that the block pattern resembles your design, but make each 'square' of your design actually twice as high as it is wide. Then the appearance of your design will be roughly the same as the printed output.

Suppose your design is as below:

16+8+4+2+1, or 31; columns 12 to 15 are all 16+8, or 24; column 16 is 32+16, or 48, and so on.

Now you can write a short BASIC routine to print out this lot. In essence it is just the command lprint chr\$(27)+"L" followed by a few numbers in chr\$().

The first digit is the number of dots wide your pattern is. If it's bigger than 256, keep subtracting 256 until it's less than 256; so a 31 wide pattern would have 31 here, a 300 dot pattern would have 44, a 600 wide pattern 88.

The next digit is the number of times you can take 256 from the width of the pattern. 31 would give 0 here, 300 would give 1, and 600 yields 2.

So, for a 31 wide pattern you'd have lprint chr\$(27) + "L" + chr\$(31) + chr\$(0); for a 300 dot wide pattern, lprint chr\$(27) + "L" + chr\$(44) + chr\$(1); for a 600 wide pattern, lprint chr\$(27) + "L" + chr\$(88) + chr\$(2).

seventy-seconds seems to work quite well (see line 50 and 70 below); you can experiment with other numbers.

To get the lower half of your note design lining up nicely with the top half, you'll need an advance equivalent to half a line space after printing the top half. You get this by lprint chr\$(27) + "J" + chr\$(24) + chr\$(13) though again you can experiment with other numbers.

The following short listing would therefore print out your 31-wide note design on paper in two halves, each half being printed three times.

- 5 FOR k%=1 to 2
- 10 g\$=CHR\$(27) + "L" + CHR\$(31) + CHR\$(0)
- 20 FOR j%=1 TO 31 : READ d% :g\$=g\$ + CHR\$(d%) : NEXT j%
- 30 DATA 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 31, 31, 24, 24, 24, 24, 48, 48, 48, 48, 48, 96, 96, 96, 96, 96, 192, 192, 192, 192, 255, 255
- 40 LPRINT g\$;
- 50 LPRINT CHR\$(27) + "J" + CHR\$(2) + CHR\$(13);
- 60 LPRINT g\$;
- 70 LPRINT CHR\$(27) + "J" + CHR\$(2) + CHR\$(13);
- 80 LPRINT g\$;
- 90 LPRINT CHR\$(27) + "J" + CHR\$(24) + CHR\$(13); 100 NEXT k%

On running the program you print out:



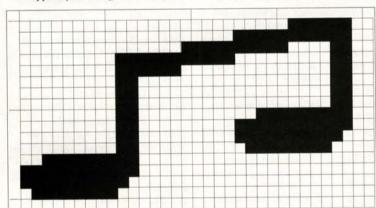
To stick text into all this, just put a line like lprint "This is text" in it.

This isn't the whole story. All the above 'listing' does to get over the gaps between horizontal lines is overprint the same pattern a little down from the last. The note printed out above suffers from a little jaggedness in the sloping line. But for really smooth results you may need a different pattern overprinted.

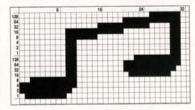
It's the same way as LocoScript uses to print a line in NLQ: it prints one line of draft-quality-like characters, moves the paper up almost imperceptibly, then prints another line of characters, each formed from a slightly different pattern to that already printed. The result is that each character comes out pretty smoothly.

To illustrate the process involved, imagine you want to be able to print out the astrological symbol for 'Mars', the biological symbol for 'male'.

The design will, like LocoScript's printed characters, come out as a 16x16 pattern. Draw it on squared paper as before, but note that because there are 16 not 8 vertical dots you



The next stage involves a lot of addition, so a calculator would be useful. Split the design into rows, each eight deep; each row corresponds to a line on the printout. Then take each row in turn and write the numbers 1,2,4,8,16,32,64,128 at the side, up from the bottom, one number to each line. The design above then becomes:



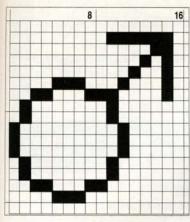
For each column, note the number you get by adding up all the numbers with black squares in them. The top half of the note design would give the following. The first nine columns are zero, as there are no black squares there. Columns 10 and 11 give

Next you put all the digits you added up above; so the bottom half of the note design will be printed out by the command lprint chr\$(27) + "L" + chr\$(31) + chr\$(0) + chr\$(6) + chr\$(7) + and so on up to + chr\$(224).

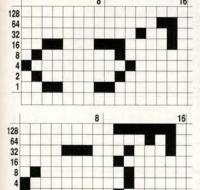
The problem with this when it prints out is that the vertical spacing of the dots is quite wide – your design comes out looking very thin and 'liney'. By a sneaky bit of cunning, though, you can overprint each line of your design twice or more, each overprint slightly displaced downwards, filling in those ugly gaps.

The BASIC command lprint chr\$(27) + "J" + chr\$(number) will advance the paper that number of 72nds of an inch. Coupled with the command lprint chr\$(13) which returns the printer to the left-hand margin you get an easy way of overprinting a part of a graphic, slightly displaced downwards each time, any number of times. Two

don't need to 'stretch' the design as was necessary with the note design above. It looks roughly the same shape as you'd expect:



The procedure is similar to that before, except that you split the design into the odd rows and the even rows:



You can then print out the two patterns almost on top but with the even rows displaced downwards in a similar way to that above:

- 10 odd\$=CHR\$(27) + "L" + CHR\$(15) + CHR\$(0)
- 20 even\$=odd\$
- 30 FOR j%=1 TO 15 : READ d% : odd\$=odd\$ + CHR\$(d%) : NEXT j%
- 40 DATA 4, 10, 17, 17, 0, 0, 0, 17, 17, 26, 4, 32, 0, 64, 112
- 50 FOR j%=1 TO 15 : READ d% : even\$=even\$ + CHR\$(d%) : NEXT j%
- 60 DATA 12, 18, 0, 0, 33, 33, 33, 0, 0, 146, 172, 128, 192, 128, 224
- 70 LPRINT odd\$; CHR\$(27) + "J" + CHR\$(2) + CHR\$(13); even\$

Giving a smooth result when the program is run:



Mini Office and Protext users can use a similar process to insert graphics into their documents... but that's another story!

Swingeing cuts

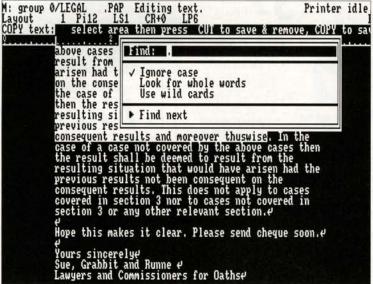
When you want to copy or cut an area of text in LocoScript, the PCW waits after you have pressed [COPY] or [CUT] for you to select the area.

Rather than use the cursors to select the area, press [FIND] then full stop then [ENTER]. The area up to the end of the current sentence is selected. To select up to the end of the next sentence, press [FIND] [ENTER]; to the next, [FIND] [ENTER] again; and so on until you have selected the

required area. This is a quick way of selecting whole sentences.

If the area to be selected ends near an unusual character – \$ for example – you can use [FIND] \$ similarly to select areas quickly. If your document consists of a lot of sections that you want to shuffle around into order, it might be a good idea to "mark" them with \$ signs to make cutting and pasting easier.

Niels Ege, Gentofte, Denmark



You don't have to rely on just the cursors when marking out an area to CUT or COPY in LocoScript; use the [FIND] facility as well to quicken things up

Code comfort for Protext users

Very often, when sending material on disc to typesetters which involves special effects or foreign accents, they want you to use certain codes: [ea] for é, for example, [ac] for â, or [bon] and [boff] for 'bold on' and 'bold off' commands. So, you'd write 'p[ac]t[ea]' instead of 'pâté' for example in a document to be typset.

The problem with this is that it's difficult to remember what the codes are and it's even more difficult to read through for sense. So, type in your document as normal, typing 'pâté' wherever appropriate.

Then, when it's finished, create and save a new document called TYPESET.MKS on the same disc consisting of lines such as:

é [ea] ag r è [eg] ag r â [ac] ag

and so on. The 'r' means 'replace' in Protext and has the same effect as pressing [EXCH]. The 'ag' means Protext does the substitutions globally and automatically.

If you want to do something similar with printer codes, add lines like this to the file:

!b [boff] 2ag r !b [bon]

and so on – similarly with !i for italic and !u for underline. Note how the '2' option makes sure Protext replaces only every second bold code it finds – i.e. the 'off' codes – with [boff], and the remaining codes – i.e. the 'on' codes – with [bon].

To convert your file to the version with the typesetter's marks, load it up and type **x typeset.mks** [RETURN]. Protext tells you how many of each it has replaced, so if the numbers of bold-on and bold-off are different you have a problem!

The converted file can then be saved and turned into an ASCII file using the BASIC conversion program that was given in November 1990's Tipoffs. Alternatively, you can try saving it under a very wide margin (so that each paragraph is then a single line).

Edwin Carpenter, Oxford

Yes you scan

It isn't impossible for Micro Design to handle Masterscan files. To load a Masterscan .PCP file proceed as follows: 1. Press [f1] to 'load area' 2. Press [f1] to change the area type 3. Select 6:SCREEN, type .* and [ENTER] 4. Load the .PCP file. It inverts as it loads, so without moving the cursors... 5. ...press [UNIT] to select a window round 6. ... and press [f5] to invert it all.

Peter Whelerton, Middlesbrough, Cleveland



Are you short of desk space? Do you have to move the computer, et al, when not in use? Or do you just like to be tidy? Then this is for you. A fully portable "home" for your Amstrad 8000 PCW. Provision can be made for hard disc or modem, and the use of fan-fold paper.



KEYBOARD STORAGE

PAPER GUIDE AVAILABLE FOR

GNOME DESIGNS TO ORDER, post your cheque for £45.71 made payable to Gnome Designs FREEPOST LS2372, 11 Syke Lane, LEEDS LS14 3YY making sure you include your name and address. FOR ENQUIRIES OR TELEPHONE ORDERS

USING AMEX, ACCESS OR VISA call our order hotline on

0937 587171.

ALLOW UP TO 28 DAYS FOR DELIVERY



SIGNWRITER

for the Amstrad PCW

Create large quality lettering from your PCW, up to 8". Produce Signs, Banners, Notices, Tickets, Posters, and Adverts in minutes.

Signwriter £29.95, Extra Fonts at £5.75

PCW Coloured Ribbons - red, green, blue, purple, brown

& orange £5.75 each. Black £4.60.

3" PCW Discs £2.30 each. 10 discs for £21

(All prices include VAT & Delivery)

We take Access & Visa. Please make cheques payable to WIGHT SCIENTIFIC

WIGHT SCIENTIFIC

44, ROAN STREET GREENWICH, LONDON. SE10 9JT Telephone 081 858 2699 Fax 081 853 4416

UPGRADING TO PC? Continue your Locoscript experience with



In stock dispatch

LocoScript PC & Link Version 1.5 £125.00

LocoScript PC £110 LocoLink £30 Link & PC S/Ware £45
Locomail £25 Locofile £27 LocoScript 2/Spell £30
The NEW Printer Support Pack £29.95 (Free with Printer Purchases)
ALL LOCOMOTIVE SOFTWARE USUALLY IN STOCK
AMSOFT CF2 DISCS 10 for £20, 20 for £39, 30 for £55
Supercalc 2 £35 Easy Labeller £28 MicroDesign 2 £38
You can see how small the ad is, call to find your price for your choice of PCW or PC Software.
We can put together some great package deals consisting of computer, printer and your preferred software. Ask for your Personal Quotation.

MANNESMAN -TALLY PRINTERS OSICOM COMPUTERS
VERY SPECIAL PRICE AMSTRAD PC MODEMS MC2400 £200 SM2400 £250

MANNESMAN -TALLY PRINTERS OSICOM COMPUTERS
VERY SPECIAL PRICE AMSTRAD PC MODEMS MC2400 £200, SM2400 £250

Send, telephone or fax your order to: THE AVENUE GROUP, 8 Fourth Avenue. Havant PO9 2QX

Incl VAT * FREE POST

Tel & Fax: 0705 454017

MODERNISE YOUR PCW!

PCW SuperDOS is the modern environment that brings Windows, Menus and Pointers to CP/M.

It improves your efficiency and reduces mistakes by its informative graphic display and simple keystrokes.

Once loaded into your PCW*, SuperDOS continually replaces the unhelpful A> prompt. It has all the features of the popular NSWEEP program, but takes over the running of your .COM and BASIC programs and .SUB files too. It also includes disk formatting and improved control of the matrix printer.

It is designed for the experienced CP/M user and novice alike.

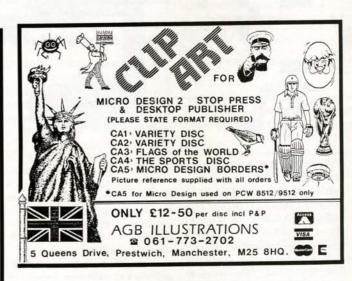
The new version 1.02 is now available - still only £29.95. Existing users can return their master disk with £5 (£6 overseas) for an upgrade.

ALL MODERN COMPUTERS WORK THIS WAY



Cheques only to Encyclasoft, Hayfields Grove, Audlem, Crewe CW3 0LB Tel: 0270 811890

* Requires 512K RAM





Flip up KEYBOARD COVER

Protect your keyboard with a rigid clear plastic cover.

Attaches to the Keyboard and cannot be lost.

Hinges simply fitted in seconds.

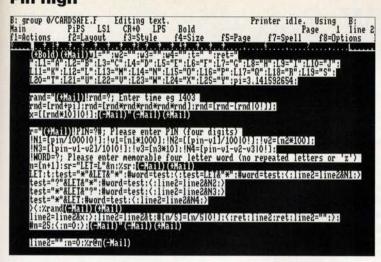
Much more practical than a soft dust cover.

Protects against items being dropped on the keys as well as spilt liquids.

Only £9.95 inc. VAT and Postage Cheques or postal orders to:

Silver Kings Ltd. Unit 10, The Tramyard, Lakedale Road, London, SE18 1PW 081-855-0790

Pin high



The routine for producing that PIN table. Note the random number generator and routine that tests for key presses – both very important and useful for other programs

Here is a way of keeping your PIN code (Personal Identity Number) for use with a cash card in a secure manner. It works like this. Suppose your PIN is given to you as 8000, but you want to remember it by the four-letter keyword PLUS. You tell the program this and it will print out a table like the following

A	В	C	D	E
8	8	C 9	3	9
F	G	H	3 I	J
F 1	7	3	7	1
K	L	M		0
3	0	2	N 7 S	9
3 P	Q 5	R	S	O 9 T 8 Y
8	5	7	0	8
U	V	W	X	Y
0	3	1	6	4

making the number associated with PLUS therefore '8000'. Carry the above table in your wallet, handbag or personal organiser and all you have to do to remember your PIN number is to remember the keyword and then consult the table. Even if someone steals your table, they won't be able to work out the number because they don't know the keyword and there are other dummy letters and numbers there to confuse them (and they will be different every time).

February's 8000 Plus had a way to generate a table like that above in BASIC. But here's a way to do it in LocoMail. The routine uses two important features.

1. Random numbers in LocoMail. The routine 'RAND' does this effectively, using the time to create the initial seed and then producing a sequence of

'random' numbers. (The same seed will always produce the same sequence).

2. How to handle keyboard input here, the individual letters of the keyword - without a great deal of typing! The answer is a mild breakthrough for LOCOMAIL which enables all sorts of otherwise impossible procedures. The key to it lies in the LocoMail subroutine SR: SR= "LET=L" &n: %SR: (-Mail) (+Mail) [RETURN] which succesively translates as LET=L1, LET=L2, LET=L3 etc. In order to achieve this note that 1) This special sort of subroutine must be within another routine. 2) The subroutine is not contained within its own (+Mail)(-Mail) 3) The call '%sr:(-Mail) (+Mail) [RETURN] must be exactly in that form. The subroutine name must be followed by ':(+Mail) (-Mail) [RETURN]

4) No inverted commas may appear within the subroutine (define all test variables outside the subroutine.)
5) Any variables which are to be inserted (such as the 'n' in the example must be added as if 'SR' was just an ordinary variable being defined.

The complete LocoMail Fill document is as follows:

(+Bold)(+Mail); CARDSAFE.F by John Eade w1="":w2="":w3="":w4="":t=" [TAB]":ret="[RETURN] ":L1="A":L2="B":L3="C":L4="D": L5="E":L6="F":L7="G":L8="H": L9="I":L10="J":L11="K":L12="L": L13="M":L14="N":L15="O": L16="P":L17="Q":L18="R": L19="S":L20="T":L21="U": L22="V":L23="W":L24="X": L25="Y":pi=3.141592654:

rand="(+Mail)!rnd=?; Enter time eg 1403 rnd=[rnd+pi]:rnd=[rnd*rnd*rnd*rnd* rnd]:rnd=[rnd-[rndl0!]]: x=[[rnd*10]|0!]:(-Mail)" (-Mail) (+Mail)

r="(+Mail)!PIN=?#; Please enter PIN (four digits)
!N1=[pin/1000|0!]:!v1=[n1*1000]:
!N2=[[pin-v1]/100|0!]:!v2=[n2*100]:
!N3=[[pin-v1-v2]/10|0!]:!v3=[n3*10]:
!N4=[pin-v1-v2-v3|0!]:
!WORD=?; Please enter memorable four letter word (no repeated letters or

'z')
n=[n+1]:sr="LET=L"&n:%sr:(-Mail)
(+Mail) [RETURN]

(+:Mair) [RETORN]
LET:t:test="*"&LET&"*":#word=
test:<:test=LET&"*":#word=test:
<:line2=line2&N1:>
test="?"&LET&"*":

#word=test:<:line2=line2&N2:> test="*"&LET&"?":#word=test: <:line2=line2&N3:> test="*"&LET:#word=test:<:line2= line2&N4:>

line2=line2&x:>:line2=line2&t:#[n/5] =[n/5|0!]:<:ret:line2:ret:line2="":>: #n=25:<:n=0:>:(-Mail)"(-Mail) (+Mail)

line2="":n=0:%r@n(-Mail)

Create a document called CARDSAFE.F (here .F denotes a 'Fill' LocoMail document). Set the tabs to every 3. Enter exactly as shown (errors can be difficult to trace). Select 'Finish edit'.

To use, just press 'F' for Fill in the disc manager with cursor over CARDSAFE.F, press [ENTER], and follow the on-screen instructions. The result should be a printed table as shown above.

If you wish to make several versions do not use 'Discard' otherwise the same number and keyword will be used. Go back to the disc manager and Fill again.

All that remains is for you to print out the result, cut it out and keep it safely in your wallet – and next time you forget your PIN – just hope that you haven't forgotten your special keyword as well!

John Eade, Fovant, Salisbury

List to the side

When I try to LLIST programs in BASIC on my 9512 printer, very long lines go right off the edge of the paper and print on the platen! How can I get them to go onto the next line?

Mrs M Smith, Salisbury, Wiltshire

8000 Plus: Easy. Before your first LIST command in BASIC, type the line lprint chr\$(27) + "@" + chr\$(27) + "I" + chr\$(0) + chr\$(80) [RETURN] and it will set the margins at 0 and 80, preventing overrun at the right hand side. You can substitute other values into the above line for 0 and 80 if you wish.

Protect and (let your listings) survive

Is there any way I can list or print out a program in BASIC that I accidentally protected by typing SAVE "PROG",P?

Audrey Roser, Doonfoot, Ayr

8000 Plus: On an 8256 or 8512 it's

easy. (On a 9512 it's much more complex and this method won't work).

1. In BASIC, type new [RETURN]

2. Then type save "empty.bas",a
[RETURN] thus effectively saving an empty file

3. Load the protected program with

load "prog [RETURN].
4. Merge it with the empty file using merge "empty [RETURN].

You can now save the listing PROG.BAS, list it, llist it etc. and it is now effectively unprotected again. So 'protected' files aren't all that safe!

Arnor's 1991 PCW Software Sale

PROTEXT ... The Word Processor

Protext is firmly established as the alternative to Locoscript.

All the features you would expect from a good word processor - many text editing commands, print commands, spell checking and mail-merging. The refinement and thought that has been put into the program - logical keystrokes and commands, clear layout, speed and power ... all go towards making Protext ideal for the novice or the experienced user.

*On-screen help * Typewriter mode * Insert or overwrite typing mode * Word count * Undelete feature * Move/copy/delete/print blocks of text * Box manipulation * Configuration * Personal dictionaries * Exec files * Two file editing * Keyboard macros * File conversion * Comprehensive Find & Replace * Foreign languages and accents * Program editing mode * Proportional printing, right justified * Conditional printing and loop constructs * Print any number of copies * Works with any printer * Calculator * Print labels * Use the maths/string functions to produce personalised invoices etc *

* Compatible with PCW 9512 * Enhanced spelling checker - larger dictionaries, dictionary on drive M or on program disc * Many improvements based on customer feedback *

"Protext deserves to be the system by which all other word processors are judged ... a superb product YOUR COMPUTER

"The great strength of this package is its ease of use" CWTA

"Protext is the solution to all Locoscript's drawbacks" PCW

"Makes Locoscript look like a snail " 8000 PLUS

"Simply the best word processing program to date for the PCW ... Locoscript is effectively dead " PUTTING YOUR AMSTRAD TO WORK

Protext is also available in German at £59.95 (Prowort)

Special Offer - Save £20

Buy Protext together with the book for £49.90 and save £20 off RRP. (RRP £59.95 + £9.95 = £69.90)

Protext + Book

£49.90

... The Book

This is an independently produced book about Protext, written by Rob Ainsley.

The book features a large section of tips for easy reference and is well illustrated with screen shots and printouts.

It also includes a section written to help the Locoscript user to 'convert' quickly to Protext.

It is an essential purchase for any current or potential Protext user whatever their word processing experience.

Protext...A PCW User's guide 246 pages, illustrated paperback

Price £9.95 + £1 post/packing (Post/packing is free if buying a piece of software)

CP/M languages and PC Protext

MAXAM II

Complete CP/M machine code development system

* Macro assembler * nested conditional assembly * file inclusion * textual substitution of macro parameters * repeat loops * Full expression evaluation * Error listing to screen/file/printer * 8080 mode * Linking facility * Create object files for use with C *

Window based monitor, with:

- * line assembler * disassembler * memory editor * find string * relocate * move memory * compare memory * fill memory * bank switching * symbolic debugger * single stepping * set memory limits for stepping * stack checking * conditional breakpoints * trace mode * edit registers
- * Editor is program mode of Protext (as for C) *

"Maxam II - now the best gets even better"

- "A really excellent piece of software which, given the speed with which debugging can be done, will pay its way very
- "The thing that struck me ... was the amount of thought and effort that has gone into this product "
- "Maxam II is stunning ... the most complete and competent programming package around. Simple, speedy and sophisticated "

RRP £49.95

Sale price £24.00

Complete C development system

- * Full implementation of K&R standard *
- * Optimising compiler * Floating point arithmetic * 32 and 16 bit integer arithmetic
- I/O and maths libraries * Conditional compilation * File inclusion * Macros * Linker accepts C and assembler (with Maxam II) * Stand alone generator produces COM files

Protext compatible editor:-

- *fast and easy to use * on screen help
- * two file editing * keyboard macros * fully configurable* powerful find and replace
- * exec files * compile from inside editor
- "Very good value for money" AMSTRAD PCW
- "Streets ahead in terms of programming
 AMSTRAD ACTION
- "In typical Arnor fashion, they've taken their time and got it right" AMSTRAD COMPUTER USER
- "All the facilities necessary to write complete applications programs '

POPULAR COMPUTING WEEKLY

RRP £49.95 Sale price £24.00

Upgrading to a PC?

Protext v5.0 is now available for the PC at a special upgrade price of £110 (inc. VAT) for all PCW users. Send us your original Protext or Locoscript disc with vour order.

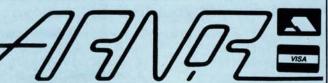
Protext has been designed as a PC program, not as an imitation of a PCW program and thus complements other PC software much better than Locoscript PC.

Features include justification and centring of any mixture of different printing fonts, including proportional; extensive language support including Fastern European languages; multiple file editing; split screen editing; index and contents; footnotes and newspaper column printing.

For further details please contact Arnor, Protext 5.0 is available for IBM PC and compatibles, Amiga, Atari ST and Acorn Archimedes.

All programs run on PCW8256/8512, 9512, CPC6128

Releasing your micro's potential...



Tel: 0733 68909 Arnor Ltd (EP), 611 Lincoln Road, Peterborough, PE1 3HA. Fax: 0733 67299 All prices include VAT, postage and packing. Access/Visa/Cheque/Postal Order.

Software E

These pages provide a guide to the best software around for the Amstrad PCW. Published in three monthly parts, this time it's the turn of Spreadsheets, Games and Graphics to face the 8000 Plus music. We've set out to test every piece of software we could lay our hands on, and to give you enough information to decide which program is the one you might be looking for.

All software will run on both the 9512 and 8000 series unless otherwise stated, though the 9512's daisywheel printer cannot print graphical output.

The selection isn't comprehensive, but the software listed here represents what we think is the best of that currently available.

As well as a brief summary of what they do, there are the main Plus and Minus points for each program - Pluses have a ▲ by them, Minuses a ▼. Games have appropriate marks out of 5. Have fun window shopping!

SPREADSHEETS

If a database replaces an address book, then a spreadsheet replaces the back of an old envelope. It is really an electronic piece of paper which allows you to jot down numbers, juggle them around and analyse the cost benefits of a situation. Vital for businesses, spreadsheets can be useful to home users too: if you want a bank loan you will find that showing your bank manager a spreadsheet printout of your living expenses answers a lot of questions!

A typical spreadsheet has a grid of rows and columns. This grid forms a screenful of cells identified by their column and row numbers, e.g. A3, K36 etc. Each cell can contain a simple number, some text to make the page easier to read, or a formula telling the spreadsheet to work out a number using values from elsewhere. The power of spreadsheets is in this last category, formulae. You can make a cell's value depend on the value of cells above it, or to the left of it, and this value is then automatically updated if changes are made to the other cells.

So how do you choose between the various spreadsheets? One difference is sheet size, i.e. the number of cells you are allowed to work with. You'll need a few hundred for home use, and 1000 or more for business use. Another area is the range of formulae that you can use – all spreadsheets allow simple column and row totalling, but with some you can get complex statistical analyses too. As with all software, think very carefully what you will need before choosing.

MINI OFFICE PROFESSIONAL

£39.95 • Database Software • 0625 859444

Mini Office is a suite of five integrated programs – database, word processor, graphics module, comms package, and a very good spreadsheet. Broadly similar to SuperCalc in operation with usual features of auto or manual recalculation, replicating of rows/columns, powerful range of arithmetic functions etc. Printout is a strong point – rows/columns can be put into italic/bold etc, and prints draft, NLQ or even sideways! Can't sort and can't just save data or structure of a spreadsheet, but maximum size of spreadsheet is claimed to be 320k. You can use the data from a spreadsheet in the graphics module directly. The manual is, however, pretty useless.

PLUSES . MINUSES

- ▲ Good, full-featured easy to use spreadsheet
- Prints in draft, NLQ or even sideways
- Maximum size of spreadsheet 320k
- ▲ Can transfer data directly to graphics module
- ▲ Can drive 24-pin printouts
- ▼ 'Save' options not as versatile as SuperCalc

CRACKER 2 TURBO PLUS

£49.00 • Paperback

POWERFUL

Software • 0245 265017

A spreadsheet designed with advanced calculating power firmly in mind, including statistical functions. The screen layout is totally defined by the user, and cell value calculations can almost be full programs, e.g DO ... WHILE.

It might prove too complex if all you want is simple spreadsheet operations. The screen messages are very helpful though.
PLUSES • MINUSES

- ▲ Can cope with very complex formulae
- ▲ Flexible screen format defined by the user
- ▲ On-screen prompts are very clea
- ▲ Graphs/charts can be automatically produced
- ▼ Documentation is large, but obscure and confusing
- ▼ You've got to do a lot of work just to get started
 ▼ Very complex for quick simple applications
- Needs some programming skills to get the most out of it
- ▼ Free workspace is on the small side (17k) although memory is used efficiently

SUPERCALC 2

BEST GENERAL BUY

£69.95 • Amsoft • 091 510 8787

The best selling spreadsheet, officially endorsed by Amstrad. SuperCalc 2 is broadly similar to ScratchPad Plus, but it has a smaller workspace and is less flexible about the allowed spreadsheet dimensions. You can store sequences of commands for repetitive calculations. Price includes VAT and p&p.

PLUSES • MINUSES

- Excellent manual sections for beginners and experts.
- ▲ Stores commands to run from files
- "Data Interchanger" allows you to transfer spreadsheet data to other applications
- Comprehensive range of calculation functions available
- ▲ Screen can be split into 2 windows
- ▼ Spreadsheet is limited by memory size
- ▼ No graphical output facilities

FIRST CALC

EASY TO USE

£29.95 • Minerva System • 0392 437756

Touted as a quick and simple to use program for the beginner, this is nevertheless quite a powerful spreadsheet, with a large capacity, ability to replicate formulae, export etc. Really it's not vastly more user-friendly than the rest but a good value package all the same.

PLUSES . MINUSES

- ▲ A lot of program for the money
- ▲ Good tutorials with demo files
- ▲ Simple to use but reasonably sophisticated
- Not much easier to use than more powerful packages
- ▼ Program is limited by the memory capacity of the PCW (300 400 filled cells)

GRAPHICS

You can use a graphics package to create and store diagrams and drawings on disc, to be amended, adjusted or printed out at will.

There are three main types of graphics package: art, technical drawing and graph plotting programs. In art packages the emphasis is on designs and pictures, with freehand drawing facilities, a selection of pretty text fonts and a variety of patterns to fill areas with. These are made much more effective and easier to use if you have a mouse.

Technical drawing packages concentrate on shapes, such as squares and polygons, lines and labels. Finally graph plotters will take your data and turn them into bar charts, pie charts and so on. 9512 owners will have to buy a dot matrix printer to do all this, of course.

The other way to produce graphics on the PCW is to use a Desk Top Publishing package - more expensive, but with the facility to handle text, too. DTPs will be covered in next month's issue.

MASTER PACK

£79.95 • Database Software • 0625 859444

A combination package, comprising MasterScan (see below) and the old MasterPaint software. Masterpaint is a WIMP environment graphics package (Windows,icons, menus and pointer) which will run with Kempston, AMX or Electric Studio mice. Usual facilities for drawing curved or straight lines, polygons, boxes, circles and ellipses, and a host of 'fili' patterns. 'Undo' function and eraser facility, plus the ability to zoom in on a part of the picture

PLUSES . MINUSES

- WIMP environment makes it easy to use
- ▲ Zoom function lets you fine-tune your pictures
- Good range of effects
- Undo and erase facilities
- Text fonts are boring
- ▼ Can't move large blocks with the copy function

MASTERSCAN

POWERFUL

£69.95 • Database Software •

0625 859444

A device which clips on to your printer head and scans pictures, sending the digitised result to disc. You canthen use the pictures in desktop publications or in other graphics packages, such as Master Paint. Very useful for newisetter production but the claims for Master Scan as a low-cost fax machine are grandiose – the quality of scanned text is poor if the text is anything less than headline size.

PLUSES . MINUSES

- ▲ Simple method of getting good digitised graphics
- Suitable for all desktop publishing programs
- Contrast control useful
- Quality of scanned text is bad no good for faxes
- Problems with illustrations containing lots of grey

GRAFLINK 2

£24.90 • Philosoft • 0282 870197

Opens up Masterscan possibilities to all DTP and graphics programs. Can also be used independently to scan in large areas of graphics, up to A4 size. Rather complex, perhaps, for the beginner, but ideal for the more serious DTP pundit.

PLUSES . MINUSES

- ▲ Gives Masterscan a new lease of life
- ▲ Excellent flexibility between speed and quality of scan
- For the experienced user it is both fast and efficient to use
- Documentation and menu system unhelpful
- Takes time and disc space

LIGHTNING BASIC + +

£29.95 • CP Software • 0993 823463

A very clever add-on to normal Basic which works on levels. The first contains all the everyday commands whilst the second and third levels are used for designing icons. characters and sprites. There is something in it or everyone, whether an experienced Basic programme

or a beginner. PLUSES • MINUSES

- ▲ Simple and easy to use
- ▲ Makes simple Basic programs look really professional
- Good fun to use
- Documentation can be unclear
- Printed output is coarse draft quality
- Can only cope with simple graphics

COMPLEMENT FONTS & BORDERS

£12.50 • Dragonfly Designs • 0603 890195

Although it can be used with all the main DTP packages, this latest complement disc was designed to work alongside Stop Press. The 11 fonts supplied on the disc show consistent good design and artistic flair and are easily loaded.

PLUSES . MINUSES

- The fonts provide a very professional finish.
- It is possible to rotate and reverse elements.
- Very user-friendly.
- Setting up borders tends to be difficult and time-consuming.
- Printed output could be better (but it is still above average).

SIGNWRITER

£29.95 • Wight Scientific • 081 858 2699

Offers the widest range of features of any of the poster printing programs. Signwriter provides a range of 20 fonts, some of them very imaginative. Ideal for posters.

PLUSES •MINUSES

- ▲ You can redesign fonts and design your own symbols.
- A wide range of interesting fonts is available
- Not very user-friendly.
- ▼ Font design is slow

TAS-SIGN

£29.95 • Tasman Software • 0532 438401

For those really big characters. Can cope with letters up to seven inches high, and down to an inch high, although at the smaller sizes the quality is not great. A wide range of options are available - reversed, underlined, bold, centred, various spacings, patternings, borders and so on. Landscape printing supported

PLUSES .MINUSES

- ▲ Good quality print out
- Four fonts available, all appropriate for large scale work
- Wide range of choices but with simple basic operations Smaller letters not printed so clearly
- Can take a long time to print out in absolute top quality

AYE PLUS PLUS

£29.95 • CP Software • 0993 823463

The full title is 'All you ever wanted to know about graphics, the universe and everything on PCW 8256/8512 ... but were afraid to ask PLUS' Phew. A wide range of little programs to do graphic things on the PCW like smooth scrolling. defining windows, moving sprites around. The programs are written in assembler, with the source code provided if you want to see how to program them for yourself and adapt the routines.

PLUSES . MINUSES

- ▲ Wide range of useful functions
- Can be used from BASIC, machine code, or other language
- The assembler source code is supplied
- Inexpensive
- Good manual
- CP don't mind you using their routines in programs you sell
- A bit long-winded to use from BASIC
- No easy way of loading just the routines you want

PAGE MAGIC, DISC IMAGE KIT, DISC POSTER KIT

£12.50 each • HD Design • 04867 81394

Clip art collection with a difference. This suite of three ready made design aids offers a wide range of additions to your text. Page Magic contains a series of sporting images and digitised male and female shots, together with a handy selection of frames and borders. Image Kit has a range of images, from Spitfires to Buddha, whilst Poster Kit offers an excellent collection of print styles, which reproduce with astounding clarity

PLUSES

- ▲ Poster Kit contains ready made words such as 'Fete' and 'Sale'
- ▲ Excellent visual clarity

SKETCHPAD II

£15.95 • Composit Software • 0952 595436

A nice little package for those who only need a simple graphics capability. Line, circle and box facilities are all supported, but curved lines are tricky. Smaller shapes and icons can be produced using the shape designer, and the final product can be tidied up using the zoom facility. Will be of interest to musicians who use the Composers Pen package - the two are easily compatible.

PLUSES • MINUSES

- ▲ Ideal for the novice
- ▲ Can be used with or without mouse
- ▲ Includes useful zoom facility
- ▲ Integrates with Composer's Pen to neaten up copy
- ▼ Limited range of paper sizes

▼ Execution of some functions can be very time consuming

PCWDRAW

£39.95 • HTB Computers Ltd • 0794 56297

A good all round graphics package. All the usual facilities available, with the bonus that it now supports the Kempston mouse, turning a good package into a powerful one

PLUSES . MINUSES

- Zoom functions for close work
- Detail editing included
- Large working screen means you see things in context
- Mouse could be more fully implemented
- Documentation rather scatty

VIDI PCW

£79.95 • Rombo Productions • 0506 414631

A very similar package to the Electric Studio digitiser; not much to choose between the two. Rombo's works with the Fleet Street Editor, Electric Studio's with Newsdesk International. PLUSES . MINUSES

- ▲ Text can be inserted from within the program
- 16 levels of shading
- Can print images to screen in defined order and time apart.
- Unhelpful manual

MD CLEARTEXT

£13.50 • Exemplar Design • 0225 315131

Designed for use in conjunction with MicroDesign, MD Cleartext allows you to create your own type styles to liven up your work. There is a range of non-English fonts on offer as well, including the accents in the French, German and Spanish languages. An excellent add-on to an excellent DTP program.

- Developed in conjunction with Creative Technology themselves, resulting in a comprehensive appreciation of MicroDesign's workings.
- No jagged edges or loss of definition when large characters are printed out
- Produced from a quality and highly reputed source

GAMES

The choice of games for the PCW is far from extensive in comparison with what is on offer for other machines. However, the range is widening, and there is an increase in graphics-based games, replacing the textonly adventures which currently dominate the market for the PCW. Text-based games rely heavily on the use of parsers, which aid adventure navigation by word analysis. The ability of a parser, is, not surprisingly, responsible for the success or failure of a game. What follows is a selection of some of the best games currently available for the PCW, together with a marks out of five evaluation.

Some pieces of software which have graced these pages for years are now discontinued - but a diligent search may find copies residing with software distributors and retailers.

AVON

£14.95 • Topologika • 0733 244682 • All PCWs

Based on the world and work of Shakespeare, this text-only adventure puts many a puzzler to even the most well-versed student of the bard. A handy help mode will get you out of the

8256, 8512 & 9512 EXTERNAL DISK DRIVES 10 FREE DISKS WITH EVERY DRIVE PURCHASED THIS MONTH

CHEAPEST EVER MEMORY UPGRADES if you haven't done it, now's the time, it is unlikely that 256k x1 memory chips will get any cheaper. 256 to 512 upgrade kit £20.00: Fitting service £10.00 + carr.

PINBOARD COMPUTERS LTD, TEL: 0462 894410

Unit 9, Bondor Business Centre, Baldock SG7 6HP PRICES INCLUDE P&P and VAT (FAX 0462 894460)

VISA

DISK RECOVERY SERVICE

Lost data recovered, data transfer, data translation over 500 format, computer repairs, shareware library.

JUST SOME OF OUR PRICES INC. VAT

Database	£22.00	PC 2386 65MB HD 4MB RAM MD	£2000.00
Ready made business letters	00.812	Citizen Printer 124D	£240.00
PCW Utilities	\$7.00	Fax Machine SX5000	£399.99
PCW 95124	\$499.99	3 12" Disk Drive PCW	£120.00
PCW 9512	00 0013	5'4" Disk Drive PCW	£170.00
Auto Sheet Feeder	000.00	Sprinter + 256K	£124.00
PC 1640 DDMD	£520.00	A-L Guide for LCM users New Bo	OK UUI 20011
PC 2086 DDMD			£4.99
PC 2286 40MB HDMD			t quote

0274 492381 24HRS OR WRITE TO: 81 ST LEONARDS ROAD, BRADFORD BD8 9QD

ONE POUND TWENTY PENCE for NEWSWEEP and NULU

The Best of the Public Domain

A huge range of excellent and tested PD software for every purpose. Languages, utilities, databases, games, text editors and much, much more. Fully documented.

Send a formatted disk and £1.20 for your copy of NEWSWEEP and NULU Installing CP/M Software

The definitive guide to software installation on CP/M machines. Comes with all necessary software. £5.00 on your disk. Only £8.00 on ours.

Format Translation and Disk Salvage We probably offer the cheapest and best service there is. All prices include return postage For FREE catalogue, please send a S.A.E. to:

> **PCW Software Library** 11 Older Way, Angmering, Sussex, BN16 4HQ.

EVERYTHING YOU EVER WANTED TO KNOW ABOUT LOCOSCRIPT Plus a lot more you didn't know you didn't know

Produce perfect letters, reports, articles, mail shots and labels without spending hours and £'s trying to find out how to do so.

YOUR FRIENDLY AMSTRAD : £9.95 Locoscript 1 on the PCW 8256 and PCW 8512

LEARNING TO LOVE YOUR AMSTRAD: £10.95 Locoscript 2 on the PCW 9512 and PCW 8512/8256

Both books are A5 format, spiral bound and fully indexed. They contain clear step-by-step guidance to all the word processing facilities and 12 session courses for beginners.

POST FREE from:

> Daphne Macara, Pandor Publications (F 6 Kelvinbrook, East Molesey, Surrey KT8 9RZ Write for further details or phone 081-979 3060 TUITION: HELPLINE Locoscript 1/2: Locoscript PC

Can't get hold of us?

Recently we've been receiving calls from readers who are having difficulty getting hold of 8000 PLUS. So here's the 8000 PLUS guide to making certain you never have to go without the magazine again.

If your local newsagent doesn't have a copy of 8000 PLUS on the shelf, try checking to see if they have any more copies in stock. Sometimes, even if they've sold out on the shelves, they'll have more issues in the storeroom. If that doesn't work, check one of the bigger newsagents such as WH Smith or John Menzies.

If you don't want to subscribe, why not fill in the form below and hand it to your newsagent. Remember, every single newsagent in the country - from WH Smith to the corner shop - will be delighted to reserve you a copy each month. You can even arrange to have it delivered to your home.

Finally, if you still have no luck, call Kate Hodges on □ 0225 442244 and tell her which of Future's magazines you're after and where you've tried to get hold of it. She'll sort the problem out for you in no time!

	copy/copies of 8000 PLUS every month, beginning with the May issue, out on 25th April.
Name	
Address	
Phone	

tighter corners. Compulsive gameplay!

ADDICTIVENESS 4/5 ATMOSPHERE 4/5 CHALLENGE

4/5 VALUE VERDICT 4/5

BRIAN CLOUGH'S FORTUNES

£14.99 • CDS • 0302 321134 • All PCWs

A cross between Monopoly and Football Manager, combining board and PCW. Go for league and cup success - but keep the bank manager happy too!

ADDICTIVENESS GRAPHICS 2/5 4/5 LASTING APPEAL 4/5 VALUE VERDICT 4/5

BRIDGE PLAYER GALACTICA 2150

£29,95 • CP Software • 0993 823463 • All PCWs

The upgraded Bridge Player 2000. Excellent Tutor mode with hands written by Nichiola Gardener of the London Bridge School. Retains strong play.

GRAPHICS 3/5 STRENGTH OF PLAY 4/5 LASTING APPEAL 4/5 VALUE VERDICT 3/5

CLASSIC GAMES 4

£19.95 • CP Software • 0993 823463 • All PCWs

A compilation of classic 'thinking' games on one disc: Clock Chess, Bridge Player, Backgammon and Draughts. Excellent

CLOCK CHESS 89

£19.95 • CP Software • 0993 823463 • All PCWs

One of the better PCW chess programs. You can alter the level of play by specifying a time limit. Capable of very strong play and the 3D graphics are excellent.

GRAPHICS 4/5 STRENGTH OF PLAY 5/5 **RANGE OF FEATURES 5/5** VALUE VERDICT 5/5

COLOSSUS BRIDGE 4.0

£17.99 • CDS Software • 0302 321134 • All PCWs

Sophisticated and flexible bridge program. It will give you advice for each hand, supports all the standard conventions, and gives you considerable freedom in setting up the hands. Relive those glory moments, rebid those failures

RANGE OF FEATURES 5/5 CHALLENGE 4/5 DOCUMENTATION VALUE VERDICT 4/5 5/5

COLOSSUS CHESS 4.0

£17.99 • CDS Software • 0302 321134 • All PCWs

A very strong chess game which manages to use time which you spend thinking to plan its strategy. Bags of features, including blindfold games.

GRAPHICS 3/5 STRENGTH OF PLAY 3/5 LASTING APPEAL 4/5 VALUE VERDICT 3/5

CROSSGRID

£14.95 • David Grenhough Computing • 0274 636475 • All PCWs

"Crossword puzzles without clues" is how the packaging describes the program. Instead of the clues, you get a grid of numbers, each standing for a different letter. Can you work out which stands for which?

EASE OF USE ADDICTIVENESS 5/5 5/5 DOCUMENTATION 4/5 VALUE VERDICT 5/5

CYRUS II CHESS

£15.95 • Amsoft • 0279 454555 • All PCWs

Chess game with a stunningly detailed 3-D display. The play is guite strong, with several handy features like allowing you to take back a move

GRAPHICS 5/5 STRENGTH OF PLAY 3/5 LASTING APPEAL 4/5 VALUE VERDICT 4/5

DOUBLE T PATIENCE

£14.95 • Thurston Techniques • 0395 277496 • All PCWs

Six well-known card games (from Poker Patience to Pairs) to be played either alone or against the computer.

ADDICTIVENESS GRAPHICS 2/5 5/5 LASTING APPEAL 4/5 VALUE VERDICT

FORESTLAND

£14.95 • Classic Quests/Audiogenic • 081 861 1166

You're in a forest and you're not sure how you got there, whether you are asleep or awake, and how the devil to get out. You need your wits about you in this game to puzzle your way out of the wicked wood.

CHALLENGE ADDICTIVENESS 4/5 3/5 ATMOSPHERE VALUE VERDICT 3/5

GNOME RANGER

£14.95 • Level 9 • 0344 487597 • All PCWs

You follow the adventures of Ingrid Bottomlow, the intrepid gnome, through a fairy tale landscape full of compelling puzzles. Humorous and rather quaint.

ATMOSPHERE INTERACTION 3/5 3/5 CHALLENGE 3/5 VALUE VERDICT 4/5

GOBLIN TOWERS

£14.95 • Classic Quests/Audiogenic • 081 861 1166

A game for beginners to adventuring, Goblin Towers sees you as a brave warrior, seeking to retrieve treasure from a goblinridden castle.

ATMOSPHERE 3/5 ADDICTIVENESS 3/5 **VALUE VERDICT 9/15** CHALLENGE 3/5

GRAND SLAM

£14.95 (plus £1.50 p&p) . Logi'stick . 0223 423456 • All PCWs

A challenging and realisticversion of lawn tennis, calling for good manual dexterity and tactics. Choice of five venues including Wimbledon. Only drawbacks are the poor racket control and the irritating ball boys, who slow the game down.

RANGE OF FEATURES 4/5 CHALLENGE 5/5 INTERACTIVENESS 3/5 VALUE VERDICT 4/5

GREEN

£12.00 • Classic Software • n/a • All PCWs

Race against the Global Warming in this new eco-drama game set in forestland threatened by over zealous lumberjacks.
Preserve your morality points, perfect your strategy, and you might save the trees from destruction.

ATMOSPHERE 4/5 CHALLENGE 3/5 GAMEPLAY 4/5 VALUE VERDICT 4/5

HEAD COACH

£22.95 • DGA/Coda • 061 330 0184 • All PCWs

You coach an American Football team, picking players and deciding tactics against real NFL teams and players. Incredibly detailed simulation - a must for NFL fans!

ATMOSPHERE 4/5 INTERACTION 5/5 CHALLENGE VALUE VERDICT 4/5

HOME ENTERTAINMENT CENTRE

Five-in-one games compilation, featuring darts, backgammon, dominoes, cards and a wordsearch game. Excellent graphics, original ideas andf presentation - darts has never yet been available as a game for the PCW.

EASE OF USE	5/5	ADDICTIVENESS	4/5
FEATURES	5/5	VALUE VERDICT	4/5

INGRID'S BACK

£19.95 • Level 9 • 0344 487597 • All PCWs

Sequel to Gnome Ranger in which Ingrid returns to Li ttle Moaning to find it under threat from Jasper Quickbuck who wants to replace it with a yuppie estate. Adventure in 3 parts.

ATMOSPHERE 4/5 INTERACTION 4/5 CHALLENGE 5/5 VALUE VERDICT 4/5

KNIGHTORC

£19.95 • Level 9 • 0934 814450 • All PCWs

You are an orc in this typical Level 9 adventure by the name of Gridleguts. An addictive game with lots of action, plenty to explore and mind-bending puzzles.

ATMOSPHERE INTERACTION 4/5 4/5 CHALLENGE VALUE VERDICT 4/5 4/5

LANCELOT

£19.95 • Mandarin • 0625 859444 • All PCWs

A game in three parts which recounts the adventures of Lancelot.. Manufacturers have vividly created an Arthurian world in which points are awarded for displays of chivalry, valour or benevolence. The game permits a full range of powerful commands

ATMOSPHERE INTERACTION 5/5 5/5 CHALLENGE 4/5 VALUE VERDICT 5/5

MYTH

£22 (membership) . Magnetic Scrolls

0279 726585 • All PCWs

Join Official Secrets and you can have access to this excellent

ALADDINK RIBBON BARGAINS!

WE REFILL PCW MULTISTRIKE CASSETTES Only £2 each plus 99p per order. PCW<u>9512</u> MULTISTRIKE D.I.Y. REFILL KIT Equivalent to six new ribbons! £10.99. "EVERLASTING ELSIE", exclusive for STAR LC10 You need never buy another cassette! £39.99 MOST FABRIC RIBBONS RE-INKED OR REPLACED Phone for availability and price.

ALSO:

SEAL 'N' TYPE COVER for keyboard protection PCW price £14.99. Specify 8256/8512/9512. THE GRIPPA COPYHOLDER, the typist's "third hand" Firm grip yet versatile. Only £11.39.

Prices all-inclusive - nothing more to pay! ALADDINK, (DEPT 80), EYEMOUTH, BERWICKSHIRE TD14 5AP. TEL: 08907 50965.

Laser Printing

From LocoScript 1 & 2

- High Quality, cost effective, camera ready copy.
- All style, emphasis and layout codes supported.
- Wide choice of fonts and point sizes.
- Enhancements include columns and graphics.
- Only 50p per A4 page. Quantity Discounts. We also print Microdesign & Stop Press pages. Artwork for this Ad printed from LocoScript at this scale. Telephone 051 630 2657 for free information pack.

DAISYWHEEL 98 Bell Road, Wallasev L44 8DP

Jsing LocoScript?

Catalogue all your files, with an indication of their contents drawn from LocoScript's Identity Text facility. Print the list, save to file, or read result into a database like LocoFile. Further details available on request to address below.

- ★ Versatile Super-LINDEX for all Amstrad PCW computers. Still only £14.95 inclusive
- * New, powerful LINDEX PC for users of LocoScript PC. Inclusive price £29.95



Festival Software Services



BookVine Ltd, 470 Leeds Road, Thackley, BRADFORD BD10 9AA

Tel (0274) 613300 (Mon-Sat incl evening)

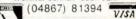
CLIPART FOR

ALL COLLECTIONS ARE SUPPLIED ON 1" CP2 DISCS
AND ARE AVAILABLE FOR
MICRODESIGN II, STOP PRESS,
NEWSDESK INTERNATIONAL THE DESKTOP PUBLISHER."
PLEASE SPECIFY WHICH OTP YOU ARE USENG WHEN ORDERING,
WRITE OR, PHONE FOR OUR FEEL INFORMATION SHEET NO 8
TELEPHONE ORDERS WELCOME



DESIGN

3 ROUNDTHORN WAY GOLDSWORTH PARK WOKING SURREY GU21 3QN



COURSEWINNER THE PUNTER'S COMPUTER PROGRAM With Artificial Intelligence

- THE LEGENDARY PUNTERS FORECASTING AID, now has
- THE LEGENDARY PUNTERS FORECASTING AID, now has artificial intelligence. The latest version, V4, has the power to learn from the results of its own predictions, constantly adjusting the prediction formula to improve performance.
 FORM POINTERS used include past form, speed ratings, prize money, course statistics, jockey form, trainer form, stall effect, the going, weight carried, and the horses ability to act under current conditions.
 DETAILED ASSESSMENT of every runner's chances is given, not just a tip. The calculated odds are compared with the starting price, and the potential profit is assessed.
 VITAL STATISTICS for all British courses (Draw advantage, Top.
- VITAL STATISTICS for all British courses (Draw advantage, Top
- Trainers and Jockeys etc) are included in the database.

 FLAT and NATIONAL HUNT versions are included.
- PACKAGE CONTAINS disc, detailed instruction booklet and support literature, all you need to start forecasts immediately.



Coursewinner V4 £28.50

POOLSWINNER II THE ULTIMATE POOLS PREDICTION PROGRAM

- MASSIVE DATABASE Poolswinner is a sophisticated Pools prediction aid. Complete with 22000 match database over 10 years.
 PREDICTS SCOREDRAWS, NO-SCORES, AWAYS and HOMES Predictions are based on many factors .. recent form, the massive database, league standing goal scoring rates, and draw averages. SUCCESSFUL Selec guarantee that Poolswinner performs significantly better than chance.

booklet and support literature, all you need to

- LEAGUE AND NON-LEAGUE matches are covered.
 FULL LEAGUE TABLES are automatically generated.
 AUTOMATIC FIXTURE GENERATION: Fixtures for English
- and Scottish League matches are generated automatically by Poolswinner's sister program FIXGEN 90/91...

 PACKAGE CONTAINS disc, detailed instruction



Poolswinner with Fixgen. £28.50

POOLSWINNER

start forecasts immediately. All programs Available for.

IBM (5.25",3.5").... AMIGA ATARI ST AMSTRAD PCW

Selec Software (Est. 1984) 62 Altrincham Rd, Gatley, Cheadle, Cheshire SK8 4DP
(send for full list of our software)



Computer Aided Investment Manager

Want to know: Which stocks are performing the best? When should you sell a particular investment? How the performance of your shares compare to the FT Index, the RPI, or a fixed interest savings account?

INVESTOR NEW

INVESTOR will do this and much, much more!

- analyse growth performance of up to 600 stock. - list stock in order of merit, best buys highlighted.
- record and monitor all your portfolio's transactions.
- revaluations with current value, profit and annual growth rate automatically calculated.
- tax liability, including Capital Gains, assessed.

INVESTOR is very user-friendly and turbo fast. All stock may be displayed graphically, with moving averages and overlays. All displays may be printed out on paper. To start you on your way INVESTOR is even supplied with an up-to-date library of 200 shares and unit trusts.

£39.95

B&BB Software

incl p&p.

2 Brawdy Crescent. HAVERFORDWEST Dyfed. SA62 6NN Tel. 0437 721690

8000 PLUS SMALL ADS!

CONVERSION PCW/IBM/MACINTOSH: 071-231 1376

HELPLINE:

Are you a new or prospective buyer of the Amstrad PCW? For free advice on any PCW aspect (not too technical!)

Phone Seaton (0297) 20456 7pm-10pm (Mon- Sun) **Chris Bryant**

UPGRADING TO PC?
Data transfers CPC/PCW/CPM/BBC/
IBM/Macintosh - 3'/3.5'/5.25' and laser
printing. Details (sae please) MAPEJ (8),
Meadow View, Quinta Crescent, Weston Rhyn, Oswestry, Shropshire SY10 7RN.

DO YOU LIKE SHORT STORIES?

WORDS is our quarterly magazine sold in aid of The Children's Hospice Appeal.

Shaun Peare (8000+), 23 James Collins Close, London, W9 3PU.

LASER PRINTING 25p/p DISK TRANSFER £5.95

Deskpress Typesetting from £1.50/p File conversion 10/p SCS, 66a Eastgate, Hornsea

HU18 1LW. Tel: (0964) 535933 6 days till 8pm

RE-CYCLE YOUR PRINTER RIBBONS.

(08907) 50965

ROUTE FINDER FOR PCW

Allows A/B and motorway routes, nultiple stops and map generation

Send S.A.E to: M. Frampton, 11 Beacon Road, Chatham, Kent.

MOLESEY EDUCATION

081-941 1364.

T-SHIRT PRINTING

With your PCW-8256/8512 for £9.95 (requires graphics software)

MGA Softcat (0797) 226601

IANSYST

Crash Typing Course £10, Caxton Touch 'n' Go typing course £10, Stop Press with mouse & interface £50 all new unwanted gifts.

Phone (02406) 3297 anytime

FLEXYFILE-ALPHA
Powerful new PCW Database. Infinite

owerful new PCW Database. Infinition storage capacity many features. Only £49.95. Details - Salop Software, 1 Hillside, Grinshill, Shrewsbury, SY4 3LQ (093 928) 424

C BASIC PROGRAMMERS

Increase your development speed by using my utility library, many useful routines. Screen code generation from com-prehensive screen template editor. For

more information, call (Bournemouth) day (0202) 401358 eve (0202) 525401

WANTED SPARE PRINTER

for PCW8512 or PCW8256 Phone Reg Milborrow on

(0635) 578893 after 5pm

LOCOMAIL - LOCOFILE

Programming service. Locomail programs written and Locofile databases set up to meet individual requirements. Contact Hazel Underwood

(0234) 853404

GCSE FRENCH REVISION

(8256/8512) 2,800 essential vocabulary phrases (fruit of thirty years teaching) Seven difficulty levels, graphics

only £14.50 from

Mike Greenwood, 181 Ceiriog,
Newtown SY16 1NN

ASTROCALC ASTROLOGICAL SOFTWARE Amstrad PCW

8256/8512. Astrotutor, A1, Synthesis, Harmonics, Chartmaster, I-Ching, Biorhythms, instruction booklets £65

(cost £136), Sharon Dunlop 14 Linden Close, Exmouth, Devon EX8 4JW. (0395) 277959

POPULAR ACCOUNTS

Programme for PCW with tutorial cassettes was £54. Sell for £30. Phone Mark on (0752) 337039 or 345228 Fax (0752) 345228

AMSTRAD PCW 8512

Locoscript 2, Locomail, Locofile, Locospell, printer interface, mouse, Rampac, Masterscan, Masterpaint, Microdesign 2, Brainstorm all manuals. Lots more software £450. Tel: Loddon, Norfolk (0508) 28487

TWIN DRIVE 9512

With 1 meg RAM board, immaculate £550 also 8000 Plus complete set issues 1-50 will not split. Best offer secures. Tel (0206) 768970 any time

FOR SALE AMSTRAD PCW 8256

Extended to 512K, plus Locoscript I and II and Spellcheck. Excellent condition £200 Phone (0233) 646894

PCW 9512, TWO DRIVES

1Mb internal Ram expansion, five extra Daisywheel fonts, DMP3250di printer. Locofile, Locomail, Amex Mouse, 3 DTP programs, Clip art, printer drivers disc, as new £625 ono.

Phone (0379) 650336

PCW 8256 With 512K RAM, TEAC 51/4" second drive and mouse. Software includes Locoscript II, Locospell, Locofile, Locomail, Stop Press, Money Manager Plus, Plan It, Tomahawk etc and disks £325 Plan It, Tomahawk etc and disks £325 Contact Mike (081) 546 6393

32K AGENDA ORGANISER

For sale, available with or without PCW link-up. As new, boxed: Price machine only £160, cable and RS232 £15.00 extra. Telephone (0272) 322985 after 6pm for details

RIBBONS MACHINE RE-INKED £1.60

Smithimprint, 2 Chester Close, Washingborough Lincoln LN4 1SH

SMALL ADS RATES

Private ads cost £7.50 for up to 30 words. (This rate only applies to readers wishing to sell their own hardware or original software or to pass on a message to other 8000 Plus readers) All other ads are now classified as Trade Advertisements and are charged at £1 per

word. (Max 30 words).

8000 Plus reserves the right to refuse any ad which is deemed to be a Trade Advertisement but which has been paid for as a Private Ad.

To place an ad just fill in this application form and send it to us with the correct pay-ment. We will then place the ad in the next

available issue (published 2-7 weeks after we receive your order).

If you wish your address or telephone number to be featured in your advert it must be included in the grid below (one word per space).

Order form Send to: 8000 Plus Small Ads, Future Publishing, Beauford Court, Bath BA1 2AP

Please place the following a	dvertisement in the next	t available issue of 8000 Plus	

NameAddress Telephone		My advertisement is a Private/Trade* Advertisement and I enclose payment for £ * delete as applicable I wish to pay by Cheque/Postal Order/Access/Visa Credit card number Credit card expiry date Please make cheques and POs payable to Future Publishing Ltd		
14 (12)				
13050				
	A Sure of the			

adventure game, where you find yourself cast as Poseidon – minus his godly powers! Rescue your fate from the lap of the gods.

 ADDICTIVENESS
 4/5 ATMOSPHERE
 4/5

 CHALLENGE
 4/5 VALUE VERDICT
 5/5

PATTERN PUZZLES

£11.50 • HTB Computers Ltd • 0506 414631 • All PCWs

A collection of intriguing puzzles requiring you to return order to a grid of patterned squares. Similar to the tile games found in Christmas crackers, except that here there is no blank space to help you shuffle things around - instead the rows and columns wrap round in various different ways. Mind bending!

EASE OF USE 3/5 DOCUMENTATION 2/5
RANGE OF FEATURES 4/5 VALUE VERDICT 3/5

RETURN TO DOOM

£14.95 • Topologika • 0733 244682 • All PCWs

Sequel to Countdown to Doom; you're back on the planet Doomawangera again to track down the ambassador Regina who has been kidnapped by some very unpleasant robots. Another text-only adventure game.

ATMOSPHERE	3/5	INTERACTION	2/5
CHALLENGE	4/5	VALUE VERDICT	4/5

SCAPEGHOST

£19.95 • Level 9 • 0934 814450 • All PCWs

You're a ghost with a mission – to catch the crooks who framed you on earth. You tramp your way through spooky cemeteries – solve the puzzles and brave the vivid graphics, and justice will be done.

ATMOSPHERE	4/5	CHALLENGE	4/5
GRAPHICS	5/5	VALUE VERDICT	4/5

SIR PERCEVAL

£14.95 • Logi'stick • 0223 423456 • 8000s only

An action game from the court of King Arthur. Fight the nasties in the castle, pick up the treasure, and make your way to the next level. Good medieval fun with pretty good graphics to boot.

EASE OF USE	4/5	RANGE OF FEATURES	4/5
CHALLENGE	3/5	VALUE VERDICT	4/5

SPORTING TRIANGLES

£19.99 • CDS • 0302 321134 • All PCWs

A computer implementation of the TV quiz show. Includes general, Hit for Six and Buzzer rounds, and choice of specialist areas. Amusing graphics, but some of the questions are quite difficult for the average sports fan, to say the least. Up to three players.

EASE OF USE	4/5	CHALLENGE	4/5
PRESENTATION	3/5	VALUE VERDICT	3/5

STEVE DAVIS SNOOKER

£17.99 • CDS • 0302 321134 • All PCWs

Surprisingly realistic simulation of both pool and snooker games – not as easy as it looks either! Foul shots, breaks and allows for spin, side, strength of shot. Good value, despite all the balls being greens!

2/5	ADDICTIVENESS	3/5
	2/5	2/5 ADDICTIVENESS

LASTING APPEAL	3/5	VALUE VERDICT	3/5
Endinte Air Ene	0,0	TALOE TEMBIOT	010

TANK ATTACK

£19.99 • CDS • 0302 321134 • All PCWs

A strategy game for the PCW. A combination of imaginative computer graphics and old-styl board game, complete with plastic tanks. Even includes on screen news bulletins! For up to four players.

EASE OF USE	4/5	FEATURES	5/5
CHALLENGE	4/5	VALUE VERDICT	4/5

TIME AND MAGIK

£14.95 • Mandarin Software • 0625 859444 • All PCWs

An excellent trilogy of time travel adventure which can be played in any order. Your task is to protect the history of the world from the destructive timelords –another very atmospheric game.

ATMOSPHERE	5/5	INTERACTION	4/5
CHALLENGE	5/5	VALUE VERDICT	5/5

TIMES CROSSWORDS - Volume 4

£19.95 • Akom Ltd • 081 852 4575 • All PCWs

Yes - the Times crossword for the PCW. No trouble about the basic material, of course - but there are a few eccentricities in the implementation. Most can be ignored, but the fact that you can only have one clue on display at a time can take some getting used to.

CHALLENGE	4/5	EASE OF USE	4/5
DOCUMENTATION	4/5	VALUE VERDICT	4/5

TERRACOM

£14.95 • logi'stick UK • 0223 423456 • All PCWs

An excellent intergalactic struggle between you, and the evil emperor Kashodex. You have to destroy his sky fortress in what can best be described as a game of cosmic squash! Regular tussles with Kashodex's space module leave you fighting for life!

ATMOSPHERE	5/5	ADDICTIVENESS	4/5
CHALLENGE	4/5	VALUE VERDICT	5/5

TOMAHAWK

£19.95 • Digital Int. • 0276 684959 • All PCWs

A sophisticated Apache helicopter flight simulator. Impressive cockpit view graphics as you engage in combat missions – can be used with a joystick too.

GRAPHICS	4/5	ADDICTIVENESS	3/5
LASTING APPEAL	4/5	VALUE VERDICT	4/5

UK TRIVIA TREASURE HUNT

£24.95 • IMC Software • 0604 54814 • All PCWs

Pit your wits against the program in this carefully planned game. The quest for success is tricky; correct answers take you to various locations nationwide.

ATMOSPHERE	3/5	GRAPHICS	/5
CHALLENGE	3/5	INTERACTION	2/5

ULTIMATE QUIZ

£14.95 • DGC Software • 0337 7444 • All PCWs

Ten quizzes on topics as diverse as the Highway Code and the

Italian language. Clean screens and an easy to use program make Ultimate Quiz excellent entertainment and good value for money too.

GRAPHICS	5/5	CHALLENGE	4/
LASTING APPEAL	3/5	VALUE VERDICT	5/

WITCH HUNT

£11.50 • Classic Quests/Audiogenic • 081 861 1166

In Witch Hunt, you have been changed from an evil scheming rotter into a positively charming person – and you are not at all happy about it. To be returned to your former state, you have to gather the ingredients to give to the warty witch who can convert you back.

ATMOSPHERE	3/5	ADDICTIVENESS	3\5
CHALLENGE	4/5	VALUE VERDICT	10/15

WORLD OF SOCCER

£22.95 • DGA/Coda • 061 330 0184 • All PCWs

A soccer management simulation game; you select squads of players for your international team and guide them through the European and World Cups. Gives a good insight into the kind of strategic thinking required.

ATMOSPHERE	4/5	INTERACTION	3/5
CHALLENGE	4/5	VALUE VERDICT	4/5

YES CHANCELLOR

£19.95 • Topologika • 0733 244682 • All PCWs

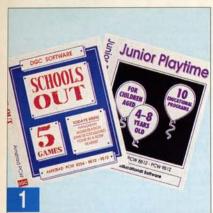
Become John Major for a day with this intense game/challenge written in BASIC. Whether it's budget balance or inflation control at stake, the Unions and the voters still have to be kept happy.

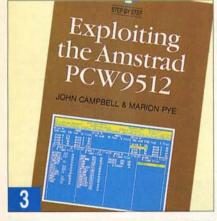
ATMOSPHERE	3\5	INTERACTION	3/5
CHALLENGE	4/5	VALUE VERDICT	4/5

NEXT MONTH

The guide continues with the categories of WORD PROCESSORS. ACCOUNTS/PAYROLL, UTILITIES and DTP. The month after will cover DATABASES, EDUCATIONAL SOFTWARE, COMMUNICATIONS and PROGRAMMING, and the month after that it's back to this month's topics. Our intention is to keep publishing the three parts of the guide in rotation, updating it each month to include all new products. If you would like to see other sections of the guide, back issues of 8000 Plus are available at £1.75 each. Meanwhile, if you are aware of any significant errors or omissions in the file as published, please let us know. We intend to maintain it as THE authoritative guide to PCW software.

8000 PLUS MAIL ORDER 8000 PLUS MAIL ORDER 80









SCHOOLS OUT/ JUNIOR PLAYTIME

Two games from DGC Software. Schools Out comprises Hangman, Wordsearch, Junior Crossgrid, Four in a Row and Reversi for the 7-14 vear old. Junior Playtime has 10 fun games for the 4-8 year old. 8000+Value Verdict 17/20 RRP £14.95 each Schools Out £10.99 Order No.8619

Jr.Playtime £10.99 Order No.8620

TEQNICHE KEYBOARD

Excellent new 102 key keyboard for the PCW that really does make keying easier. 8000 PLUS were so impressed we got one ourselves! Not only does it feature a clear and clean design, but it feels so much more comfortable. And the well worth it R.R.P. £90.85 **OUR PRICE £79** Order no.8635

EXPLOITING THE AMSTRAD PCW 9512

Written by John Campbell and Marion Pye, this book is aimed at the more experienced user of the 9512. 300 pages, packed with information on programs from Locoscript to Supercalc.2. Highly recommended by the 8000 PLUS team. R.R.P. £14.95 OUR PRICE £13.45. Order no.8637

COPY HOLDER

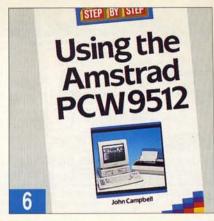
A handy accessory, easy to fit, easy to use and easy to buy. Not only does it make typing easier but also keeps the desk tidy. Just fill in the form. OUR PRICE £9.99. Order no.8617

FUN SCHOOL 3

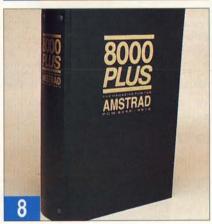
The best-selling education package now available for the PCW. Separate packs for the under 5s, 5-7 yrs and over 7s. With 6 games in each pack and conforming to the National Curriculum: 8000+Value Verdict 18/20 R.R.P. £24.99

Our Price £19.99 U 5s.... .Order No..8623 5-7s..... Order No..8624 Over 7s. Order No..8625

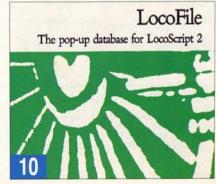












00 PLUS MAIL ORDER 8000 PLUS MAIL ORDER 8000

USING THE AMSTRAD PCW 9512

Written specifically for 9512 owners byJohn Campbell, an acknowledged expert, this book is designed for the beginner. With over 170 pages on how to understand and operate the 9512, this book is an ideal guide. R.R.P. £10.95 OUR PRICE £9.95. Order no.8636

5.25 INCH DISK DRIVE

This PACE disk drive is the answer to your incompatibility problems. and gives you the benefits of 800k disc capacity. It comes complete with TDOS which allows MSDOS or PCDOS data to be transferred to your PCW.

R.R.P. £189.99 **OUR PRICE £145** Order No. 8622

8000 PLUS BINDER

You need never lose another tip again with these gold-embossed binders. At last, you can tidy up that pile of 8000 Plus's you keep meaning to sort.

At this giveaway price you no longer have an excuse! OUR PRICE £4.95 Order no.8004

TWO FOR £9.00 Order no. 8076

8000 PLUS T-SHIRT

And from the latest fashion shows we are pleased to present the definitive accessory for the 8000 Plus reader who needs to do a bit of gardening or late night programming-The 8000 Plus T-shirt in glorious American Royal Blue. MED T-SHIRT £4.95 Order no.8071 LARGE £4.95 Order no. 8072

LOCOFILE 8256/8512

The industry standard database from the makers of the industry standard word-processor. Combines brilliantly with LocoScript 2 for the8256/8512, in an easy-to-use environment. Pops up whenever you need it.

We are giving away a free wallchart and a T-shirt with this package. **OUR PRICE £29.95**

Order no.8044B



COLLECTION The Ultimate Tips Book for the Amstrad PCW 12

CRACKER

Spreadsheet featuring Precision Graphics

MINI OFFICE PROFESSIONAL

This has to be the Integrated package for all your business needs. Comes with "The all in one Business Computing Book", this package contains word-processor, database, spreadsheet, graphics and comms. We are giving away a free pack of highlighter pens with this offer . **OUR PRICE £26.95** Order no.8610

THE 8000 PLUS COLLECTION Ex-editor Rob Ainsley has put

together the best hints and tips from 4 years of your favourite magazine. Essential reading for all our readers. Now only available with Disc. BOOK&DISC PRICE £14.40 Order no.8603

CRACKER 2

Charts, graphs, everything you would expect from the PCW's most powerful spreadsheet. With Paperback Software behind it and our own Buyer's Guide rating you can be sure this will fulfil your spreadsheet needs.

R.R.P. £49.95 OUR PRICE £29.95. Order no. 8081



8000 PLUS	S I	MAIL O	RDER
NAME			
ADDRESS			
POSTCODE			
PHONE NUMBER			
DESCRIPTION		PRICE	ORDER NO
тот	AL		
Method of payment (please circle) Access Credit card no	Visa	Cheque PO	Send this form to
Expiry date	17.		Future Publishing Ltd,

ONEY MANAGER PCW

Now even more powerful, more friendly, and more useful !!!

Be your own accountant!

Control your finances the easy way!

Money Manager PCW provides individuals, businesses and professional people with a simple yet powerful way of managing their financial activities. All transactions can be entered easily and then presented in a wide variety of reports, ranging from a detailed listing of expenditure for tax purposes to summaries showing, for example, how much money has been spent on petrol or phone bills in a chosen period. Reports can be printed as text, sent to a datafile for further processing or presented in graphical form.

The program includes many helpful features, such as pop-up claculator, context-sensitive help windows and macro comands. The Money Manager package has over 25,000 users in the UK alone. It is the ideal program for people who find that traditional accountancy programs are too complicated, unwieldy and time-consuming for their requirements.

- Any number of data files: Personal, Business, Accounts etc.
- Budget and cash-flow forcasts which may be updated
- 12 months per file, up to 500 entries (transactions) per month
- Move a file forward a month at a time when required
- All options selected from the main menu
- · Up to 20 user-defined accounts: Bank, Cash, Visa, Savings etc.
- Up to 50 user-defined classes of income and expenditure
- A reference of up to 6 characters for each entry
- our own descriptive text of 18 characters for each entry
- All the codes are displayed on-screen whilst entering data
- Add, modify and delete existing entries at any time
- Quick insertion of standard entries and standing orders
- Entries can be sorted into date order at the touch of a key
- Single character 'mark' for extra reporting selectivity
- Statements showing each entry in detail with running balance
- Reports may show classes merged into logical groups Spreadsheet type table showing class totals in each month
- Report showing class totals for each account
- Bar chart for up to 4 selected categories
- Pie charts of up to 20 selected 'slices'
- Detailed bank statement reconciliation with running balance

- Totals for each class of transaction for any period
- Report of monthly income, expenditure and cash-flow etc.

- Report of account and class totals (eg profit & loss)
 Account statistics monthly max, min, average, balance etc.
 Automatic calculation of VAT, with multiple rates if required
 Detailed VAT reports showing taxable, VAT and gross amounts
- Summary VAT statements in the same format as a VAT return Simply ignore VAT features if they are not required
- Print any report to built-in (or separate) printer
- Print any report to a file for word-processing (eg in Locoscript)
- Data search facility to find 'lost' items
- Built-in text line editor for data entry
- Horizontal and vertical scrolling of screen reports
- Pop-up five function multi-line calculator with memory
- Macros to record and replay user-defined reports
- Context-sensitive help windows appear at the touch of a key Automatic creation of back-ups for data files
- You can choose which disc drive to use for data on a PCW8512
 Comprehensive 64 page indexed manual
 Two sets of sample data for practice and familiarisation
 Free and indefinite telephone support

Software Ltd.

To receive your copy of Money Manager PCW by return post phone us now with your credit card number, or write to us at the address below enclosing your cheque for £49.95

081 743 9792

8am to 10pm, 7 days a week

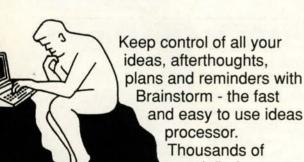
Connect Software Ltd., 3 Flanchford Rd., London W12 9ND







I think, therefore I am a BrainStorm user



	processor. Thousands of satisfied users.
To: BrainStorm Software	, FREEPOST, Ruislip, Middlesex, HA4 8BR
Please rush me:	My copy of BrainStorm + manual
000.00	Further information
£29.99 inclusive	Name:
metasive	Address:
VISA	
Telephone	
0895	
677845	
(Our full address is 18 Co	urtlands Close, Ruislip, Middlesex, HA4 8AX).

Dust •

NO COMPUTER IS COMPLETE

WITHOUT A DUST COVER

Protect your valuable computing equipment from dirt and damage with a professional quality dust cover from BBD's extensive range.

Manufactured from top quality washable nylon with stylish, contrasting piping on all seams.

Exclusive Features include

- Treated with a Flame Retardant and Anti Static Inhibitor
- Non Crack and Non Tear
- Non Shrink and Non Fade
- Tailored Fitting
- Machine Washable

FULL MONEY BACK GUARANTEE IF NOT COMPLETELY SATISFIED.

The BBD A-Z range of professional dust covers includes such names as • IBM

- Amstrad
- Compaq ● Archimedes ● Epson
- Olivetti
- Tandon Victor

- Ferranti
- Opus
- Zenith

COMPUTER COVER SETS FROM £11.95 INC. PRINTER COVERS FROM £6.25 INC

BBD Dust Covers, The Standish Centre, Cross Street, Standish, Wigan WN6 0HQ. Tel: 0257 425839 Ext. 39. Fax: 0257 423909

Please send me the new BBD Price List

Name

Address

Computer/Printer_ **Computer Protection**

Postscript

It's Postscript, the pages where you can really air your views!

This month's missives bring solutions to stardom, requests about repairs, frustration with formatting and much, much more! And, surprisingly, there's not one April Fool in sight... If you want to make sure that your opinion counts, drop us a line; the address is Postscript, 8000 Plus, 30 Monmouth Street, Bath, BA1 2BW. Sorry, but we can't answer correspondence personally.

Stardom!

There may be a simpler solution to Mr Dorey's rows of stars in his Cracker spreadsheet than the one you suggested in March's Postscript. It could be that he has not set the column wide enough for the totals to fit in, in which case Cracker will display stars to show there is insufficient room. If so, all he would need to do would be to put the cursor over the column, type N(ew) W(idth of column) and a figure which could accommodate the largest total he is likely to get.

Finally, a cautionary note.
Before buying Masterscan bundled with Masterpaint I phoned the supplier to ask whether these would run with the SCA Rampac fitted and was assured there would be no problem.
Masterpaint doesn't, as I have since confirmed with Database Software.
Fortunately, there are alternative programs to use with Masterscan but I could have been in real difficulty.
Moral - check with the software house if in doubt.

J V Knight Ilford, Essex

8000 Plus: Thanks for your letter, JV; you were not the only one to offer an alternative solution to Mr Dorey's star problem. On the second point, I am pleased to hear that Database Software were so helpful; unfortunately, trying to obtain such help from other software houses can be like getting blood out of the proverbial stone.

Still, your experience is, it seems, a lesson to them all...

In a fix

I own an Amstrad PCW 8512. Could you please tell me where I could get my computer insured for any repairs as my one year guarantee will soon be finished in April '91. Can you get on site insurance?

G Pidgley Walton-on-Thames, Surrey 8000 Plus: A company by the name of Dictaphone Ltd offer the kind of 'insurance policy' which you are seeking, in the form of a maintenance contract. They are, if you like, the AA or the RAC of the computer world; you pay them an annual membership fee, and in return, they will carry out any repairs to your PCW, in the comfort of its own home. For details of prices, and how to contact Dictaphone, turn to our special repairs feature on page 57 of this month's issue!

Identical things

With reference to the letter "All change" in the March 1991 issue of 8000 Plus, all three versions of the PCW8256/8512 are electronically identical as far as I can tell. I have a Version C printer, and a copy of the service manual which features the original version of the printer.

These are two obvious changes that have occurred to the printer during the lifetime of the PCW; the plastic rollers on the bail bar of the later printers have changed in shape; also, the design of the print has changed radically, although this would not affect the electrical characteristics of the printer where it plugs into the PCW. These changes would appear to be responsible for the Versions 2 and 3.

On the subject of printers, and of Amstrad's attitude to their customers, my print head failed last December, and I have only just managed to get a replacement. Printheads do seem to be in very short supply, which is ridiculous! It's the old cliche; nice machine - shame about the service!.

Mr S Pearson

Chipping Norton, Oxon.

8000 Plus: Thanks for the confirmation, Mr Pearson; it is not always very clear what is and isn't interchangeable as far as PCW kit goes. Sorry to hear about the delays in obtaining a replacement printhead - next month's issue will feature a fully illustrated guide to PCW 8000 series printhead maintenance.

Sorry to say that in your case, it's rather a case of shutting the stable door after the horse has bolted, but the feature could stand you - and others - in good stead for future breakdowns!

Say it again

I enjoyed David Langford's article on the perils and joys of indexing the latest - March - issue of 8000 Plus. It is not, however, a trifle specious of him, to "plug" Ansible, from his own company? There are other indexing programs available for the 8512 and 9512 PCWs, including of course LocoFile and Cardbox.

Best of all, at least in my experience, is Macrex. Drusilla and Hilary Calvert first developed this for CP/M machines in the mid-Sixties, went on to MS/DOS Apricot and IBM compatible versions, but mid-term produced PCW variations.

When I think of the cost and effort involved in indexing on five-by-three cards since 1955, I could weep for my own lost revenue and energies. But that's progress for you...

A Morley-Priestman North Chingford, London

8000 Plus: Dave Langford, specious? Whatever next!! We have to humour him from time to time, and, having been with us since the early days, he is allowed to get away with the odd plug-ette. Of course, the other programs you mention are equally legitimate - though we can't say we've come across Macrex!

Fair's fair

While Nik Holmes is of course right to point out that Micro Design 2 will accept pictures from MasterScan without Graflink2, he is not however right in saying that "The only advantage of Graflink is...to scan a longer image". The restriction with MasterScan standing alone is not just one of length but also of width, except at very low resolution. The main purpose of





Graflink2 is to make it possible to scan right across the page at medium and high resolution.

This is demonstrated by Alec Rae's article "In the Picture". Although it is not acknowledged, the Acne Pumps picture was scanned using Graflink 2. This is proved by the second illustration, where a file is loaded called PUMP2.MDA. MasterScan cannot produce MDA files without Graflink2.

To produce the same result with MasterScan alone would have taken hours (and pages) longer as he would have had to piece together at least 4 separate files using cut-and-paste utilities in Micro Design 2. Graflink2 makes this laborious and time-consuming process unnecessary.

T M Richens Philosoft Colne, Lancs

8000 Plus: Thanks alot for your letter, Mr Richens. This topic is now closed.

At your service

Could you possibly tell me where I can obtain a Service Manual for the Amstrad PCW9512. Isenstein used to stock these, but no longer do so! I feel I am going to need a manual, since I have intentions to carry out a lot of internal modifications to the computer.

S J Lockley Tavistock, Devon

8000 Plus: The manual which you refer to can be obtained by contacting good ol' Amstrad themselves on (0277) 230222, or try the Official Amstrad User Group on (091) 510 8787.

All fail!

I have had a PCW 8512 for some 6 months and have consistently had difficulty formatting discs in the B drive. About 50% fail to format and as a consequence I don't use the B drive very much.

However, having now just purchased LocoScript 2 with LocoSpell, I need always to employ it and have wondered if in fact there is some fault with the drive itself rather than the actual discs.

Your advice would be appreciated. E C Cole Peterborough

8000 Plus: Hmm, it does sound rather ominous, doesn't it? As long as you are following the formatting procedure, Disckit, from CP/M correctly, there doesn't seem to be a clear cut reason why your discs are failing. Disckit does lay down very strict instructions for formatting, and its pretty hard to go wrong. Could be time to put your machine in for a 10,000 mile service, Mr Cole. Check page 57 of this issue for your nearest repair centre.

Wordly wise

Your correspondent Roy Smith (Jan 91) points out that the PCW's LocoSpell contains the "useful" OUABAIN. If your readers do not know what this word means they will be really delighted to know that this glucoside C31 H48 012, closely resembles STROPHANTHIN - which is also in LocoSpell.

Rev R W Clements Gorey, Jersey

8000 Plus: It's also in the 8000 Plus coffee machine, I fear.

IT

What is it, where is it, when will it come or has it come? What ever happened to the "major new product for the PCW" the Locomotive Software Managing Director, Howard Fisher, said was being worked on, June's 8000 Plus. Every month when I hear the clunk of 8000 Plus coming through my letter box, I rush to see if "IT" has appeared and if it has, could "IT" possibly be the longed-for LocoSpread. Will patience be rewarded or has "it" actually appeared and was it so insignificant that I did not even notice its coming.

Perhaps it was the Printer Support Pack that I am already using and did not think of in terms of a "major new product". Will I survive the suspense or will "IT" come too late?

David Hortop Newport, Isle of Wight

8000 Plus: IT certainly isn't the Printer Support Pack; but judging by the silence in which Dorking has been shrouded for the past ten months, IT is nearly ready. We bring you more - next month...

The right Teqniche

I felt that I had to write to you to sing the praises of Cirtech, Teqniche and PRM Communications.

The Managing Directors of all three companies were very helpful in their support when purchasing their products, How refreshingly different it is in this day and age to meet people who are concerned in providing the best service to their customers; not just in taking the money! In addition, I must say how delighted I am that in having taken steps to upgrade my PCW 8512 both in speed and quality, at what has proved to be a price when in both cases was not exorbitant, I now have a computer which ranks with others supposedly better by design - if one believes all the opposition literature!

I now look forward to many more years of successful computing on my trusty Amstrad.

Gerry Brown Weston-super-Mare, Avon

8000 Plus: The companies which you

mention have excellent reputations on all counts, Gerry - probably because they manufacture excellent products, and they are totally committed to championing the cause of a jolly fine computer. I'm glad to hear that you are pleased with the 'extras' in which you have so confidently invested - and hope that you'll have 8000 Plus as an equally trusty companion in those future years.

Saving grace

While much tempted by your generous offer of 25p off each copy of your magazine I have also to consider the health of the sweetshop-cum-newsagent in my small village in Kent. Reluctantly, therefore, (I am of Scottish extraction) I have come down in favour of the local shop. There, I assure you, I have a permanent order for your excellent magazine, which up till now, has never let me down.

As a user of both Loco 2 and Protext, I am particularly glad to have articles and tips on both systems. Your present article on headers and footers in Protext is a good example of this service. Your articles on new hardware and software are invaluable.

I discovered Proscan through your columns and the article on Cirtech's Sprinter I found very interesting and well balanced.

I will refrain from complaining too strongly about the space devoted to all those ghastly games. As my grandchildren grow up, I suspect they will want to have a go at them on my trusty Amstrad 8512 and might even persuade me to have a go myself.

J C Collier Beneden, Kent

8000 Plus: Of course, a subscription is the best way to ensure that you are never deprived of 8000 Plus, but the course of action which you describe has its advantages as well. Other readers may be interested to hear that you can go into any newsagents' - from Land's End to John O'Groats - and place a regular order for 8000 Plus. And just to make it even easier, we've a special form for that very purpose on page 77 of this issue. At least that will prevent the ghastliest game of them all; jostling for position at the 8000 Plus shelf in your local shop every month, trying to secure a copy of the magazine before it sells out...Thanks very much for your letter, Mr Collier.

Pest control

I was particularly touched by Jane Cheasley's sad letter about her mouse. Some little while ago, I came upon the following notice from what must surely be a major computer manufacturer. "MOUSE BALLS ARE NOW AVAILABLE AS FRU"

"If a mouse fails to operate, or should perform erratically, it may be in need >

EEE MONEY FROM EEE

Your home PCW is a cash generator. Get it working for you. Start now. SAE brings free details.



Home Keyboard

Dept 8, 22 Shirlock Rd London NW3 2HS





MATERIALS BREAKDOWN FOR **EVERY JOB - AUTOMATICALLY**

 o_{nlv}

CALL NOW ... 0387-88612

for your FREE INFORMATION PACK

RUNS ON ANY PC OR PCW COMPUTER

SUPER EASY TO USE

Available only to Building Trade Professionals

ADVERTISERS INDEX

A to Z ComputersIFC	Kosmos50
Advantage6	Lindex79
AG Booth Illustrations72	Locomotive Software4, 13
Aladdink79	Logistick66
Ansible Information60	Mapej87
Arnor Ltd74	McGregor Software87
Astrocalc60	Meridian14
Avenue Group72	Microtyne56
Axxon Computer Supplies38	Miles Better49
B & BB Software79	MJC Supplies54
BBD Dust Covers84	Moonstone29
Bacup52	NewstarOBC
Boxoft56	Pandor Publications77
Brainstorm84	Pan Euro89
Bradway Software56	PW Computers56
Codex52	PC Microcentre56
Caspell ComputersIBC	PCW Software Library77
Compact Micros38	PCW World14
Compumart45	Pinboard77
Computing Plus49	PRM Communications49
Comstax29	
Connect Software84	Rodesign50
Creative Technology51	RSC42
Database Software17	SC Coleman56
DGC50	SCA9, 51
Discovery Software87	Selec Software79
Disc Recovery Service77	Silicon City60, 61
Daisywheel79	Silver Kings72
Dunning Computers37	Simple Solutions38
Encyclasoft72	Software Imperative33
Genesis Marketing87	Sticky Dog37
Gnome Design72	Suredata60
HD Design79	Thurston Techniques60
Headline Communications37	Timetic Systems56
Home Based Business52	Wight Scientific72
Home Keyboard87	Wave49
HTB Computers52	West of Britain18, 19
Intraset20	Worldwide50

We can transfer your data between

CPC, PCW, BBC, PC and Macintosh formats

3"/3.5"/5.25" disks Details (SAE please)

MAPEJ (8)

Meadow View, Quinta Crescent, Weston Rhyn, Oswestry, Shropshire, SY10 7RN Tel: 0691 778659

REPLACEMENT PCW KEYBOARD 102 KEYS INSTEAD OF 82!!

A 'TOUCH' OF LUXURY

Replace your existing 82 key keyboard for the enhanced full size Teqniche keyboard for £79.00 (plus VAT) OR get a PCW typing tutor and snug fitting quality dust cover included in an excellent price of

£84.95 plus VAT

(Allow £2 for post & packing)

GENESIS MARKETING, 73 COOMBE ROAD, IRBY, WIRRAL, L61 4UW



051 648 5402

VISA

TARTRACK+

A graphical astronomy program for all PCWs See the stars, Moon & Planets for £19.95

- Locate individual constellations, the moon and planets • Identify the brightest stars • Draw the Horizon & Ecliptic
- Show only the brightest stars or all stars to Magnitude 4.5 · Position yourself anywhere on earth at any time View all 88 constellations... lots more.

The 50+ page manual gives detailed instructions for Testing Yourself, Navigating with the Polynesians, showing the Milky Way etc.

"Countless hours of education & enjoyment" - Mr. K "An excellent piece of software"

"Very Impressed" - Mr. K

Write for details or send cheque/postal order to:
Discovery Software, 291 Cricklewood Lane, London NW2 2JL. Telephone 081 455 9962



of Ball replacement. Because of the delicate nature of this procedure, replacement of mouse balls should be attempted by trained personnel only.

"Before ordering, determine type of mouse balls required by examining the underside of each mouse. Domestic balls will be larger and harder than foreign balls. Ball removal procedure differ depending upon manufacturer of the mouse. Foreign balls can be replaced using the pop-off method, and domestic balls replaced using the twistoff method. Mouse balls are not usually static sensitive, however, excessive handling can result in sudden discharge. Upon completion of ball replacement, the mouse may be used immediately. It is recommended that each servicer have a pair of balls for maintaining optimum customer satisfaction, and that any customer missing his balls should suspect local personnel of removing necessary functional items."

I am sorry I cannot provide any further informations as to the source of such an authorative notice.

Michael F Harris Felpham, Bognor Regis

8000 Plus: I think it's probably better that way, Michael...

Self catering

I am delighted at having made the change from a PCW to a PC, using LocoScript PC on an Olivetti 286. My only disappointment is that "8000 Plus" no longer seems entirely appropriate and PC magazines like "PC Plus" do not appear to write on LocoScript to any degree.

Have you plans to include articles of interest for the likes of myself in 8000 Plus, or can you offer any alternative suggestions?

Donald H Clark Wanstead, London

8000 Plus: The seeming lack of information which you have encountered is, admittedly, frustrating. Excellent though it is, LocoScript PC competes among a far larger crowd for prominence as a word processor than its PCW equivalent does, and consequently, doesn't command regular editorial attention, even in 8000 Plus' sister magazine, PC Plus. We have given this matter some considerable thought, and will be happy to incorporate Loco PC queries into our regular LocoPlus section. So, if any of you are using the program at home or at work, and have problems, drop us a line; we'd like to be of help. After all, LocoScript owners, of whatever format, are still speaking the same language; it's just that our accents now vary.

Internal affairs

The detailed instructions published under the heading "Carbon Copy" on pages 26 and 27 in the March issue of 8000 Plus are extremely clear, and I would like to thank you for informing your readers about our product.

However, when some people come to follow those instructions and open their cassettes, they may be surprised to discover that the internal mechanism is unlike those illustrated. So far we have identified about six different designs of mechanisms inside various makes of PCW9512 cassette, ranging from the extremely elegant and simple one illustrated, to a highly complex arrangement of springs, wheels, sprockets, guide-posts and rollers which are a nightmare to deal with.

In order to overcome this difficulty, we have assembled a Starter Pack comprising two cassettes of the type you have illustrated, plus four refills and, of course, instructions. This pack is priced at £10.99 inclusive, which is equivalent to six ribbons at £1.83 each.

As far as our mail-order refurbishing service is concerned, we are happy to accept any make of cassette. If this turns out to be one of the extremely complex ones, we may simply substitute one of our own cassettes instead of replacing the carbon in the original. The price for this refill service is £2 each plus 99p per order, fully inclusive.

Nick Godwin, Aladdink, Berwickshire, Scotland

8000 Plus: Thanks for the info, Nick.

Cautionary tales

Andy Stillman's letter in Postscript, March issue, pointing out the possible loss of disc data due to weakening magnetic field and your reply suggesting re-copying discs every four months to prevent this, must have filled many of your readers with horror.

You obtained your recommendation from Dave Smith (The Disc Doctor) and while accepting fully his authority on this matter you would be doing your readers a valuable service if you obtained from both disc manufacturers and software houses, such as Locomotive Software, their considered opinion on shelf life of data on discs, assuming reasonable storage conditions, and passed this information on to your readers. As a matter of interest I have some 80 3" disks up to over five years old. Panicking as a result of this letter I checked at random number of discs which had not been copied for over five years, including the original LocoScript disc I obtained with my PCW 8256. To my great relief all were still readable/copiable.

Have I just been lucky, or is your recommendation to re-copy every four months over cautious?

John K Glascodine Lennoxtown, Glasgow

8000 Plus: While we have been known to be a little bit reckless at times, we do

strongly believe in the motto, "Better to be safe than sorry." One or two of you were similarly alarmed by the recommendation we made, but there's really no need to panic; we were simply drawing attention to the fact that a disc cannot be expected to last forever, and that measures should be taken to protect and extend the life of the data which they contain. Yes, Dave Smith did make the recommendation; and we can't help feeling that, coming from someone who is involved in data recovery on a daily basis, we all should sit up and take a little bit of notice. Forewarned is, as they say, forearmed!

Classic account

I wrote to you last December to tell you about the problem I have recently been having in transferring files from my PCW 9512 to a recently acquired Apple Macintosh Classic.

The reason for the Apple Mac is that most of the outlets for my articles and also my publisher in the USA requires, if possible, that material submitted to them on Apple Mac discs for easy transfer to their printers. The greater part of my files are on PCW discs which they cannot handle (some haven't ever heard of the PCW). I had a 3.5 inch drive fitted to the 9512 by Moonstone of Clydebank (they also fitted a 5.25 inch drive to the 8512 to increase my flexibility) and attempts were made to transfer files via the 3.5 external drive. They failed, and attempts to solve the problem also failed. Then I approached the Apple Centre in Glasgow, and with the help of them and Moonstone and their version 2 of the program 2-in-1, we can now move files from the PCW8512 to the Mac Classic via the 3.5 inch external drive.

There must be others who face a similar problem and who would be interested in a solution. This is it! Geoffrey Boothroyd Glasgow

8000 Plus: Thanks for helping others to get to the core (ouch!) of what must be a common problem.

Seeing green?

Recently I have noticed that when I switch on my PCW, instead of obtaining a uniformly green screen, it is covered in jagged black lines. Is this serious - and expensive to correct?

P C Crisp Settle, N Yorkshire

8000 Plus: It sounds like you need to adjust the vertical hold button on the back of the machine - sometimes, it can be moved accidentally, and then produces this rather disconcerting effect! We suffered the same problem when we recently moved our PCWs to different desks, but soon found the cause - and luckily, the cure. Hope this helps!

Come in number 82 your time is up!

EXIT

your standard 82 key PCW keyboard and

ENTER

the new full size 102 key enhanced PCW102 keyboard from Teqniche.

With improved key action, touch typist styling and dedicated software

quick keys you could increase your computing productivity by as much

as 20%. Manufactured to exacting standards each PCW102 is guar-

anteed for over 1 million individual key strokes, and priced at only £79

it costs less than a replacement Amstrad keyboard. So isn't it time to

STOP

wasting time and start using the PCW102.

Once you've tried it, we feel sure that you won't want to





to your old keyboard.

Teqniche is the only manufacturer to offer a keyboard enhancement pro duct for the PCW 8256/8512/9512. Installation is easy - just plug the PCW 102 into the existing port used by your old keyboard. Once installed you can enjoy the benefits of an Industry standard enhanced layout that has been

specially adapted for PCW users. Featuring separate function keys for software, separate numeric keypad, feelers on "F" and "J" and separate pull down menu keys. Plug in a PCW102 and enhance the performance of your PCW.

Call Pan Euro for the name of your nearest Tegniche dealer.

Pan Euro Limited, 8 Craven Court, Winwick Quay, Warrington WA2 8QU, England. Telephone: (0925) 234170 Facsimile: (0925) 234160



competition

Find the correct answers to the competition questions below, and you could be the lucky winner of a brand new, luxury PCW keyboard!



One of the biggest selling points about the PCW is that it represents a complete 'package'. Once the machine is safely installed in the home or the office, it can be put to work immediately. But the human race is a strange breed. No sooner have we got something working to our satisfaction, than we want to improve matters.

We don't need to upgrade machines; the PCW provides everything that we need in a system – and more besides. It's just the creature comforts in life. We change printers, we buy 'extras' such as Rampacs, disc drives, mice – but we've never been able to replace the one piece of the original package which is subject to the most constant battering of all; the keyboard.

Until now, that is. A company by the name of Pan Euro have come up with the first ever 'alternative' PCW keyboard. With its smooth contours and clicky keys, the Teqniche PCW102 allows even the most clumsy of fingers to tap the light fantastic. Such is the ease of movement that the keyboard even seems to increase typing speed. Indeed, so popular is the 8000 Plus model of the Teqniche, that we have had to set up a strict rota system to ensure that everyone gets a fair turn.

Apart from the initial impressions of added comfort and a better 'feel', the Teqniche's extra features – such as a separate numeric key pad and eight individual function keys – combine to make day to day work much more comfortable. If you turn to page 26 of this month's issue, you'll find an indepth look at more of these extras.

The good news is that we have three of these keyboards to give away. All you have to do is to answer the questions below, and send the answers in on a postcard. Note that the address is different to the usual one; such is the response to the competitions run by 8000 Plus and her sister titles, that we've had to allocate a new building especially to sort the entries. So, the new address, for competitions only, is, Teqniche Competition, 29 Monmouth Street, Bath BA1 2BW. Entries to arrive before 25th April 1991. Good luck!

- 1 How many keys in total does a standard PCW keyboard have?
- 2 How did the QWERTY keyboard get its name?
 - a It was invented by Quentin Werty
 - b Because of the arrangement of keys on the top row of the keyboard
 - The first ever keyboard only had room for those six letters
- 3 When learning to type, which keys are officially known as the 'home' keys? a abcd efgh b 1234 5678 c asdf jkl;
- 4 Which of the following sentences is used by typing teachers to demonstrate the use of every letter in the alphabet?
 - a The quiet black dog jumped over the lazy duck
 - b The quick brown fox jumped over the lazy dog
 - c The quirky black duck jumped over the lazy dog?
- 5 RSA is an official examining body for typing and secretarial qualifications. What do the initials stand for?
 - a Royal Secretarial Association
 - b Royal Society of Arts
 - c Registered Secretarial Association

NEXT MONTH!

It's your turn!

LocoPlus, our regular five page LocoScript section, is set to expand next month - to encompass some of the many Loco tips which you have been sending in! The section is designed to help beginners to the program - but, as we are well aware, many of you have more than an elementary grasp of the PCW's native word processor. So, if you've discovered a valuable tip which could be of help to newcomers, or just have some general advice to offer, let us know! Letters should be sent to LocoPlus, at the usual address. The best tips win hard cash!

Printer maintenance

This month's illustrated walkthrough looked at DIY repairs to the PCW 9512 daisywheel printer. Next month, it's the turn of the 8000 series dot matrix printers. If your ribbon is new, your output is faint, and you don't relish a repair bill which could break the bank, don't miss May's step by step guide to PCWprinter maintenance!

Bowled over

Imagine the scene - it's a long, hot, summer's afternoon; all that can be heard is the gentle tap of leather against willow, the muted clapping of gloved hands, the singing of the birds... What are we talking about? No, it's not the annual 8000 Plus picnic, but the cricket season. Alright, we know that its more likely to be a case of shivering in the pavilion, but whatever the weather, cricket scorers can now use the PCW to help them keep track of an afternoon's play. The new program, Scorecard, can even be used out of the cricket season, just for fun! Don't miss Scorecard's first innings in our May issue!

Absent friends...

As much as we'd like to admit to a rather cunning spot of April foolery, the absence of Flipper 3 from this month's 8000 Plus was, believe us, no joke. Don't despair; we're more than quietly confident that the program will be checking in to the 8000 Plus Review desk in plenty of time for our May issue...

The May issue of 8000 PLUS

will be on sale from 25th April '91 visit our Poole shop . . .

1 New Orchard **High Street** POOLE Dorset BH15 1LY

OPEN Mon/Sat



Shop: (0202) 669668

fax: 0202 - 668208

PAPER

BEST QUALITY white, wood free - LOW DUST specification 11x9.5" 60gsm FANFOLD LISTING 2000 £13.95 11x9.5" 70gsm MICROPERFORATED 2000 £15.95 85gsm LETTER QUALITY £10.95 11x9.5" 1000 70gsm MICROPERFORATED £19.95 A4 size A4 size 2000 85gsm LETTER QUALITY 1000 £11.95 NCR 2-PART PLAIN 1000 £21.95 11x95' 11x9.5" NCR 3-PART PLAIN 700 £24.95
and of course there's our own UNIQUE A5 continuous paper
A5 size 80gsm LETTER QUALITY 1000 £11.95 11x9.5"

LABELS

TOP QUALITY FANFOLD LABELS FROM AVERY ADDRESS SIZE: 3.5 x 1.5" available 1 or 2 across

, IDDITEOU O				The state of the state of
2.75 x 1.00"	£2.75	4.00 ×	1.00"	£3.40
2.75 x 1.50"	£3.70	4.00 x	1.50"	£4.50
3.50 x 1.00"	£3.15	4.00 x	2.00"	£6.50
3.50 x1.50"		5.00 x 5.00 x		£3.95 £5.95
3.50 x 2.00"	£6.30	5.00 x		£7.50
A	I DOICEC AD	E 1000 -		

CARRIAGE - Paper and Labels are subject to an extra charge towards delivery.- PLEASE SEE BELOW

PERSONAL ORGANISER PAPER



Fanfold paper for your organiser!

Use with LocoScript etc or specialist programs!

6.5-in deep (39 lines) by 3.75-in wide + edge strips

80gsm white paper with microperfed edges. Fanfold paper for your organiser! 250-pack £8.95, 500-pack £14.95 inc VAT

DISKS

THE VERY BEST - MAXE! CF2 3' HIGH GRADE DISKS suits all 3" drives, single or double density

5 for just £11.50 10 for just £21.95

20 for just **£43.90 plus FREE.....** LOCKABLE DISK BANK (holds 20+) WORTH £9.95

* CF-2 Disk labels: £2 per 50 when ordered with other goods.

ACCESSORIES

DUST COVER SETS: - protect your computer from lifes little mishaps - Coffee/Children/Pets/Dust. Machine washable 9512 * 8256 * 8512 £9.95 PCW 9512 DAISYWHEELS - All styles £5.95 ea.

THE DESK TOP STRIPPER I -strips the perforated edges from fanfold paper. VERY USEFUL our price. . . . £9.95

RIBBONS

ALL TOP UK BRANDS

£3.95 Band B 2741FN 8256 Black fabric std Fabric LONGLIFE 2741LL £4.95 Band C 8256 2741Col Band C ***8256** Fabric colours £4.95 Multistrike films 2741MS £3.95 8256 ribbons also suit the 8512

We recommend FABRIC ribbons for these printers

Band B 2746FN £3.95 9512 Black fabric std Band C Band C £4.95 Fabric LONGLIFE 2746LL 9512 *9512 2746Col £4.95 Fabric colours 9512 Multistrike films 2746MS £3,95 Band B

Multistrike films are the kind supplied with new 9512's but FABRIC ribbons can be used with Re-inK, to further increase the printing life of the ribbon.

100K chars LIFETIMES: Multistrike Films 400K chars Fabric std

Fabric LONGLIFE 750K chars COLOURS AVAILABLE 8256/9512: - Blue/Brown/Red/Green 2 - off Buying more than one ? 5 - off

Price Band B £7.45 £16.95 £8.95 £19.95 Price Band C

a order line: 0202 - 666155

cost effective computing starts here. . . .

Mail Order Division: Unit 2A, Sterte Ind Est., Sterte Rd, Poole, Dorset BH15 2AF

FABRIC RIBBON RE-INKING **FORMULA**

a future-friendly product from OFFICE-21





Still throwing your old ribbons away?

introducina



Simple, easy re-inking at home!

One can will Re-inK up to 30 PCW ribbons or top-up 100+!!

only

- J Completely ozone-friendly
- 1 Contains NO propellants or harmful solvents
- 1 Recyclable aluminium can
- I Superb quality dense black ink

All fabric ribbons have press-on tops . . . Just lift off the top, spray on a teaspoonful or two of ink and leave to dry.

For CLEAN, CLEAR, BLACK PRINT . . . again and again and again .

SOFT SPOT

PLEASE STATE WHICH PCW YOU HAVE WHEN ORDERING SOFTWARE * * * this month's special offer * * *

PCW DRAW a full function dr	afting program	RRP £39.95 our price	. £29.95
Arnor Maxam Assembler	£39.95	Loco Keyboards Disc	£12.95
Arnor C Compiler CP/M	£39.95	Loco 9512 Printwheels Disc	£13.95
Cornix Card Ind PCW 8000	£29.95	MAP Stock Control	£49.95
Cornix Card Ind PCW 9000	£29.95	Masterfile PCW 8000	£35.95
Cornix Simple Accounts	£79.95	Micro Design II	£49.95
Cracker II Turbo Spreads't	£36.95	Micro Design II/AMX Mouse	£89.95
dBase II	£49.95	Mini Office Professional	£29.95
The Knife Plus	£18.95	Money Manager PCW	£39.95
LocoFile/Mail Combo 8000	£47.95	Pocket Protext	£28.95
LocoFont 1 & 2 Combo	£27.95	Protext	£44.95
LocoFont 24 Combo	£27.95	D. Rogers Total Accounting	£79.95
LocoScript/Spell Combo	£37.95	Sage Payroll	£54.95
LocoFile PCW 8 or 9	£32.95	Sage Popular Accounts	£74.95
LocoFile/Script Combo	£42.95	Sage Popular Accounts Plus	£109.95
LocoMail 2	£27.95	Stockmarket	£29.95
LocoScript 2	£27.95	Stop Press	£39.95
LocoSpell 2 PCW 8000	£22.95	Stop Press/Mouse Combo	£79.95
Loco 9-Pin Printer Driver	£17.95	Super Calc II * * SPECIAL ! *	* £29.95



ALL OUR PRICES INCLUDE VAT same day despatch + 1st class delivery ALL ITEMS FREE DELIVERY except Paper & Labels

★ HOW TO ORDER ★

order by FREEPOST

Loco 24-Pin Printer Driver

CASPELL COMPUTER Dept 8K FREEPOST Poole Dorset BH15 2BR

order by PHONE **2** 0202 - 666155

VSA 4 - LINES * 24 hrs

£22.95

order at the SHOP See top left for address

> order by FAX **2**0202 - 668208 24 hrs

PAYMENT

CHEQUES - made payable to CASPELL COMPUTER VISA and ACCESS POSTAL ORDERS

PAPER DELIVERY (except Personal Organiser) UK MAINLAND (any quantity) £5.00 3/5 DAY SERVICE: NEXT DAY SERVICE: (orders placed by 3:00pm)

OVERSEAS: (optional insurance)

(any quantity) £2.50 £10.00

PERSONAL CALLERS

LABELS

(any quantity) £ FREE £10.00 A 5 1 5200

EVERYTHING

ELSE

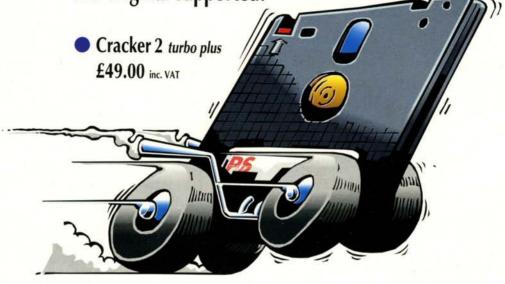


COPIES OF OUR TERMS OF TRADING ARE AVAILABLE UPON REQUEST. ALL OFFERS ARE VALID FOR 28 DAYS

Surface shipping at cost

Cracker 2 lus

Now with larger worksheet - up to 3 times the original supported!



Cracker 2 turbo plus is the powerful, user friendly graphics spreadsheet specially written for the PCW 8256, 8512 and 9512. Fast and easy to use, with a wide variety of graph styles, why settle for a text-only spreadsheet when the best costs less?

Cracker 2 turbo plus is capable of checking entries for error as data is keyed into a work sheet. Arithmetic, logic and syntax are all checked before being accepted.

Once a worksheet has been created Cracker 2 turbo plus can translate these figures into graphs, in high resolution, either on the screen or to an Epson compatible printer. Bar graphs, pie charts, line graphs, logarithmic, scatter and hi lo graphs can all be produced.

Built-in functions are available for doing statistical analysis, complex logic and higher mathematics. Special functions for cashflow calculations and tax assessments are also provided.

- Cracker 2 turbo plus supports 55 columns by 255 rows
- Makes full use of the PCW 32 line screen
- Extensive graphing capabilities
- On-line help and error checking

Upgrades from Cracker 2 turbo to turbo plus are available from NewStar Software Return the original program disks together with £12.99 +VAT to the address below.

